Annex D	Revision 0
Naval Nuclear Propulsion Program	1/12/2018

Annex D - Naval Nuclear Propulsion Program

Summary of Changes:

- New chapter. Contains text from 2014 FNF Plan sections: Annex D, Appendix 2
- Highlighted sections identify added or modified text.

D.1 Introduction

The Naval Nuclear Propulsion Program (NNPP) is a joint Department of Energy / Department of Navy organization which is tasked with the responsibility to design, build, operate, maintain and manage the nuclear-powered warships and facilities which support the U.S. nuclear-powered Naval fleet. The Program utilizes the resources of both DOE and the Navy and the Director is assigned responsibilities in both agencies to provide for a fully integrated approach.

D.2 Naval Nuclear Propulsion Program Area of Planning Attention

Emergency Planning Zones (EPZs) established by NUREG 0654 / FEMA REP-1 are not applicable to NNPP nuclear propulsion facilities in Washington. Because of differences in the design and operation of naval nuclear propulsion plants when compared to commercial nuclear power plants, the exposure to the public would be localized and not severe in the highly unlikely event of a release of radioactivity from a ship. Therefore, there is no need for Kitsap and Snohomish Counties to have special emergency response plans as are required for the counties where commercial nuclear power plants are located.

To assist state and local authorities in assessing the need for any preplanning in the vicinity of naval bases or shipyard where nuclear powered vessels are berthed, the Naval Nuclear Propulsion Program has designated Areas of Planning Attention (APA). The APA extends 0.5-miles around every location where nuclear-powered vessels are normally berthed (i.e. from the actual dock or pier, not the shipyard or naval base property boundary). The 0.5-mile distance is based on detailed, conservative analysis of worst-case, highly unlikely scenarios. The actual radius of the impacted downwind area will most likely be smaller.

For Naval Base Kitsap-Bremerton and Naval Station Everett, only small portions (e.g. a few city blocks) of the APA cross over the Federal Government property boundaries. For Naval Base Kitsap-Bangor, the APA is completely within Federal Government property boundaries except for areas in the Hood Canal (Appendix 2 – Maps) Kitsap and Snohomish Counties are

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responsible for developing and implementing Protection Action Decisions (PADs) and implementing appropriate protective measures to protect person(s) within their jurisdiction, but outside of the Naval Nuclear Propulsion Program facility's boundary. The Washington State role is to assist the county through technological assessment of the incidents, making recommendations for protective measures and other emergency response assistance when requested by the county.

D.3 Naval Nuclear Propulsion Program Dose Based Event Classification Methodology

The Naval Nuclear Propulsion Program (NNPP) uses the four classes of Emergency Classification Levels (ECLs) specified in NUREGS-0654/FEMA REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in the Support of Nuclear Power Plants. While the NNPP uses the same four classes as commercial nuclear power plants, the ECLs are different. Because of the differences in the design and operation of NNPP nuclear propulsion plants, the NRC/FEMA guidance is not applicable to Naval nuclear propulsion plants. ECLs are normally classified based on a conservative estimate of total radiation exposure to a hypothetical member of the public located near the Federal government property boundary (or nearest public residence) in terms of dose to the whole body or to the thyroid during the plume phase. The NNPP uses the Protective Action/Guides (PAGs) specified by the EPA 400-R-92-001 of October 1991, Manual of Protective Action Guides and Protective Actions (1 rem TEDE, 5 rem committed dose equivalent (CDE) thyroid). The dose thresholds for the lower tier event classes (i.e., Site Emergency, Alert, and Unusual Event) were then established using fractions of the EPA PAGs.

Event Classification	Radiation Dose	Radioiodine Dose
Unusual Event	<0.01 Rem	<0.05 Rem
Alert	>0.01 to <0.1 Rem	>0.05 to <0.5 Rem
Site Area Emergency	>0.1 to <1.0 Rem	>0.5 to <5.0 Rem
General Emergency $> 1.0~{\rm Rem}$ $> 5.0~{\rm Rem}$ Normally based on exposure levels of a hypothetical person located at the Federal Government property boundary or the nearest public residence.		

Figure D.1 Naval Nuclear Emergency Classification Doses

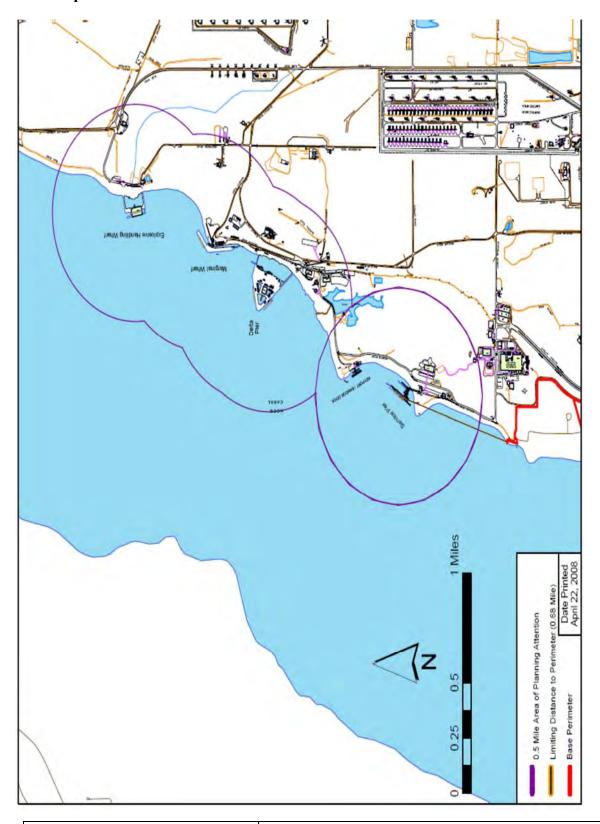
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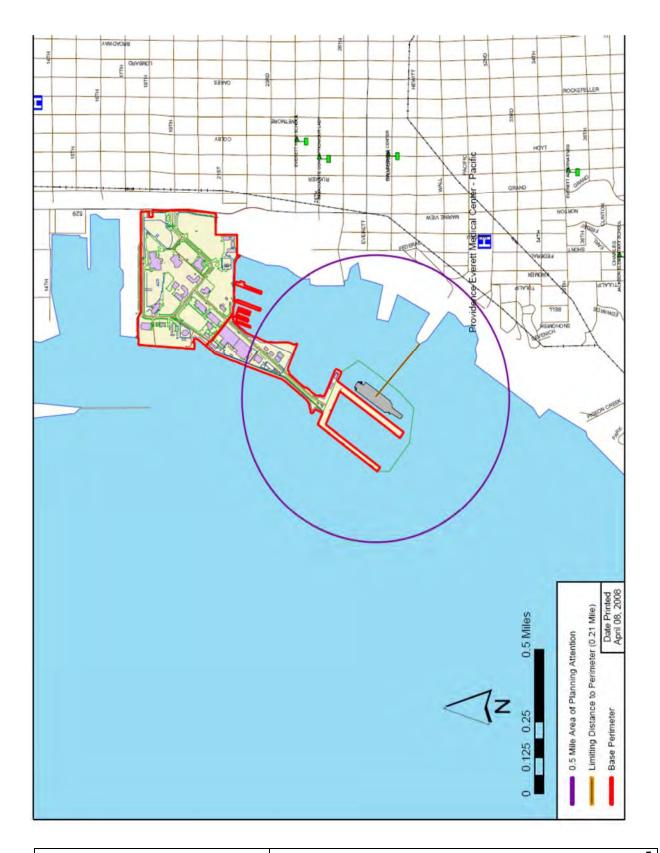
Dose estimates are made using actual field survey data taken near the Federal Government property boundary and a two-hour release is assumed if the duration of the release is unknown. Because field survey data will not be immediately available, the NNPP will normally assign an initial event classification of "Alert" if an event involves actual or potential for reactor core damage and there is an actual or potential for a release to the environment using the current NNPP Event Classification / Notification Form (Figure 4 6 - Naval Nuclear Propulsion Program Civil Authority Notification Form, Page 1 of 2 and Figure 4 7 - Naval Nuclear Propulsion Program Civil Authority Notification Form, Page 2 of 2). An initial event classification of "Unusual Event" will be normally assigned if a reactor core is not involved (e.g. facility fire involving radioactive materials), and a release to the environment has occurred with potential for measurable dose to a hypothetical member of the public near federal property boundary.

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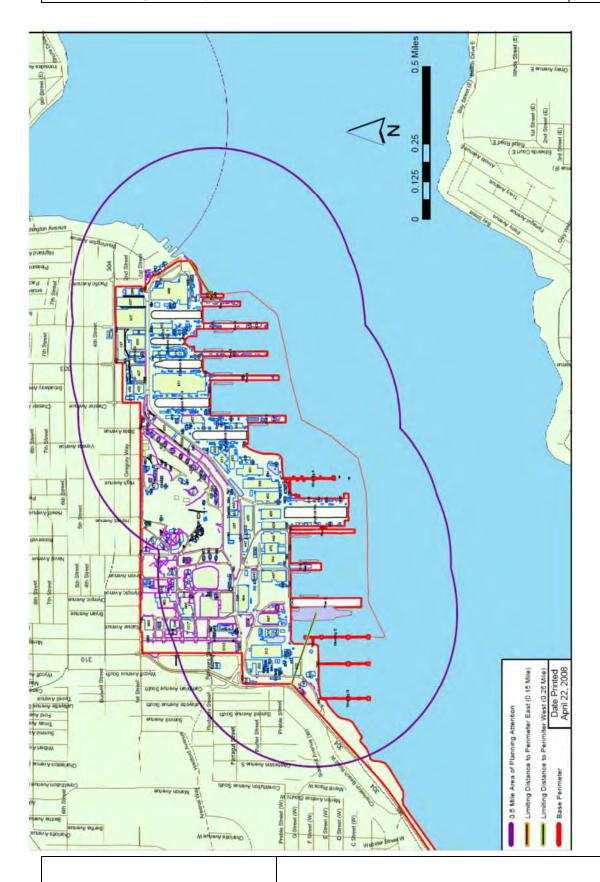
D.4 Maps



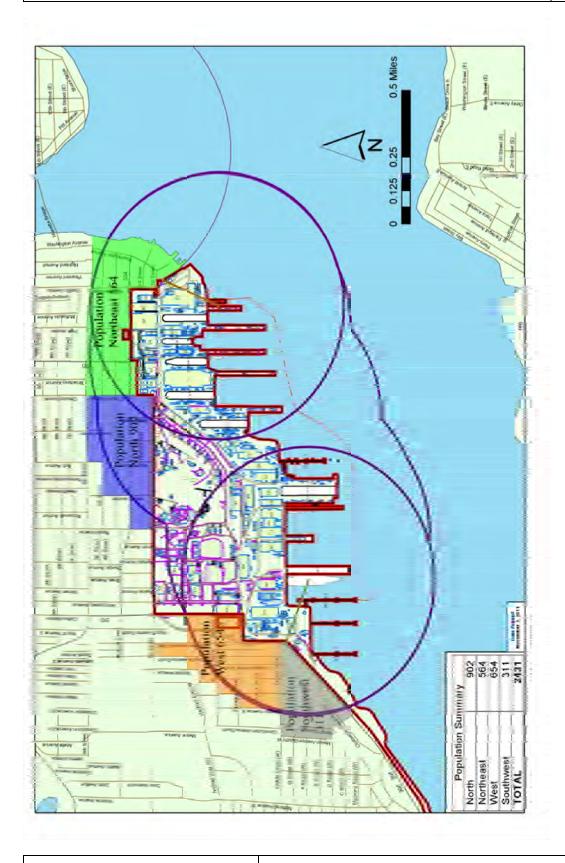
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Annex E	Revision 0
Agriculture and Food Control Measures	1/12/2018

Annex E - Agriculture and Food Control Measures

Summary of Changes:

- New chapter. Contains text from 2014 FNF Plan sections: Annex F
- Highlighted sections identify added or modified text.

E.1 Introduction

This Annex provides for the coordinated application of food control measures and other agricultural protective actions during the response to facility incidents or emergencies at Columbia Generating Station (CGS), United States Department of Energy Hanford Site, Framatome, Inc. and facilities associated with the Naval Nuclear Propulsion Program facilities with the potential to threaten the public health and safety of people in Washington State.

E.2 Concept of Operations

- 1. The concern for food control and the deposition exposure pathway begins in the early phase of an incident. Meteorological data, facility data, and measurements taken by appropriately equipped field teams during and immediately after the release will help define the initial actions required when the release is terminated.
- 2. In the first hours after the release is terminated, field teams will continue to measure and sample material deposited on the ground to identify areas where ingestion and control of food are of concern.
- 3. This initial area(s) is plotted on a map at the facility and sent to decision-makers from the affected county(ies) and state(s). Geopolitical boundaries describing the area(s) using easily recognizable features such as roads and rivers are proposed by the affected county(ies). This proposed boundary is forwarded to the Washington State Emergency Operations Center (SEOC) for coordination. The SEOC evaluates the proposed boundary, drafts and forwards a Governor's Proclamation to the Governor's Office with a description of the boundaries of the food control areas.
- 4. DOH and WSDA will measure, sample, and analyze food for deposition. As this occurs, the boundary of the FCAs will be adjusted. It is anticipated that the area(s) will be reduced through this process.

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- 5. Sources of licensed milk production, and food production and processing facilities within the ingestion exposure pathway are listed in the WSDA Radiological Emergency Procedures. Methods and procedures for carrying out protective actions are also described in the same document.
- 6. The sampling of crops, dairy products, and open water resources is conducted concurrently with the field measurements through a joint field team consisting of WSDA and DOH personnel. WSDA personnel are responsible for dairy milk sampling but may not be present on every DOH field team. Sample collection assistance is requested as needed from the local agricultural community, other states, USDOE-RL, other federal agencies, the nuclear facilities, or commercial firms under contract to conduct this function. The results of laboratory analysis of the samples are factored into the decisions regarding protective measures to be taken.

E.3 Notification

- 1. WSDA will make available an agricultural protective action leaflet at Food Control Points (FCP).
- 2. WSDA or the local office of the Washington State University Cooperative Extension will provide information directly to food producers.
- 3. If established, the Joint Information Center (JIC) for the incident or emergency will be the primary point for release of general public information.
- 4. County emergency managers should be prepared to release information identifying the affected areas and provide the following.
 - a. Agricultural protective action information at Emergency Worker Assistance Centers (EWACs) and other locations for residents residing in the Plume and Ingestion pathway.
 - b. Specific information to home gardeners at EWACs and other locations for those residing in the Plume and Ingestion Pathway.

E.4 Response Actions

Initial Actions

- The affected counties issue agricultural advisories when a release is imminent or has begun. The advisories are initially based on projections describing the probable deposition path of the release. This is the first official indication more stringent food control measures may need to be carried out.
- 2. Health coordinates and directs monitoring resources to determine relocation and food control isopleths.

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- 3. State and county planners develop recommended initial food control boundaries based upon the calculated dose line provided by the DOH from a Dose Assessment Center (DAC).
- 4. Based upon the counties' recommended geopolitical boundaries for FCAs, the SEOC will draft a Governor's Proclamation to formally establish the FCAs. The formal Governor's Proclamation will also stop food from being transported out of the FCA. This Proclamation is designed to protect the public from consuming adulterated food.
- 5. Traffic Control Points (TCPs) will be needed on primary and secondary roads crossing the food control boundary. Food Control Points (FCPs) will be established where major commercial food transportation routes cross the food control boundary. These points serve to restrict transport of food from the FCA until food can be verified to be within accepted health standards by laboratory analysis. Law enforcement and representatives from WSDA, or other designated agencies will staff the FCPs. Commercial vehicles will be stopped to advise the vehicle operators of the Governor's Proclamation.
 - a. Commercial food transporters will be directed to return their cargo to its point of origin within the FCA.
 - b. People operating non-commercial vehicles may stop at a FCP on a voluntary basis. If the vehicle stops and is transporting food from the FCA, they will be asked to return the food to the point of origin or sign a statement voluntarily surrendering their food at the FCP.
 - c. In those cases where the FCA is crossed by an interstate highway, or other limited access highways, TCPs should be established at each highway on-ramp within the FCA
- 6. Upon determination of the FCA, DOH in coordination with WSDA will establish a sampling plan to sample and monitor milk, pasture, and other agricultural crops to protect the health and safety of the population. Priorities of sampling are based on the risk to the most sensitive population (children) and crop harvest seasons. Laboratory analysis levels at which milk, water, and other food crops are embargoed are found in the Washington Department of Health Radiological Emergency Response Plan & Procedures.
- 7. Appropriate responses will consist of the identification and application of measures to protect various elements of the food chain from becoming adulterated. They also must address the proper disposal or diversion of food for which the contamination cannot be prevented or removed.

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Continuing Actions

- 1. Support will be needed for Food Control Points (FCP) and TCP personnel.
- 2. The protective measures are modified and become increasingly more precise and location-specific as additional data is generated. Ingestion pathway protective measures are based on field data and lab analysis. Health certifies the food per laboratory analysis of samples. WSDA releases or embargoes the food, as appropriate.
- 3. Once all effects have been analyzed, final protective measures can be designated and implemented until full recovery and restoration activities are complete.

E.5 Responsibilities

Primary Agency: Washington State Department of Agriculture

WSDA is responsible for preventing adulterated food from entering the food chain through oversight of commercial sales and movement of agricultural commodities. WSDA and DOH work in tandem to provide a comprehensive approach to the ingestion exposure pathway response. WSDA procedures detail how its responsibilities will be accomplished.

- Provide representatives to operate the FCPs at key transport intersections on the food control boundary with appropriate law enforcement.
- Target the specific crops and food products proven to be unacceptable for consumption, as the contamination profile is further defined through field samples and laboratory analysis.
- Identify and monitor the activities of licensed commercial dairies, farms, processing plants, and wholesale distributors, within the ingestion pathway Emergency Planning Zone (EPZ).
- Notify the agricultural community of the state's Protective Action Decisions (PADs).
- Assist DOH Office of Radiation Protection with obtaining samples for laboratory analysis, at licensed dairies, as requested.
- Coordinate with county agricultural agents who are charged with identifying family and hobby farms in the ingestion pathway to ensure appropriate protective actions are carried out.
- In conjunction with DOH, develop a prioritized sampling plan of the projected area(s) affected by a radiological release from a facility.
- Contribute to the identification of the geopolitical boundaries of the relocation area(s) and food control area(s), and the locations for the FCPs.
- Issue embargo orders as required, oversee testing of embargoed food, and monitor the proper disposition of adulterated food.

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Support Agencies

1. Washington State Department of Fish and Wildlife

When Fish and Wildlife land holdings or facilities fall within the FCAs, Fish and Wildlife personnel will be assigned to work cooperatively with other state agencies to conduct sampling in these places, as well as control access into and out of these areas. Fish and Wildlife will work cooperatively with the SEOC Executive Section to ensure protective actions to control the harvest of fish, shellfish and game in FCAs are carried out.

2. Washington State Department of Health (DOH)

DOH will coordinate and direct all offsite monitoring to identify affected areas and verify non-affected areas; monitor and sample, and analyze air, milk, pasture, water, soil, and agricultural products as described in its Radiological Emergency Response Plan and Procedures. When the Federal Radiological Monitoring and Assessment Center (FRMAC) is activated at the state's request, DOH will continue to coordinate and direct all offsite monitoring operations in collaboration with the FRMAC staff.

- Analyze field data, perform dose assessment, and develop Protective Action Recommendations (PARs) that will effectively protect the health and safety of residents and the food supply.
- Provide health physics support and contamination control for WSDA Sanitarians when they collect milk samples from a radiologically affected area.
- If state and local capacity to deploy the required number of field teams is overwhelmed, prepare a request for federal assistance from the FRMAC.
- With WSDA, develop a prioritized sampling plan of the projected area(s) affected by a release from a facility.
- Provide technical assessment and analysis of field data to provide basis for county geopolitical boundary proposals for FCAs.
- Assign personnel to work cooperatively with WSDA personnel monitoring food at facilities within or near the FCAs, as appropriate.
- Consult with the facility and federal support teams, to identify additional laboratory
 resources qualified to conduct the required analysis of samples, if necessary. Identify
 needs for additional transportation capabilities to move samples to these laboratories, as
 required.
- Oversee the analysis of samples at all laboratories involved with the response.
- Provide continuing regular updates of dose assessment, analysis of field data, and new or refined Protective Action Recommendations (PARs) to the Executive Section of the SEOC.

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3. Washington State Military Department

Emergency Management Division

- Support the Washington State Emergency Operations Center (SEOC) and assist local governments as necessary. Specific tasks in support of DOH and WSDA operations in the Food Control Areas (FCAs) may also be assigned.
- Coordinating Agency for ESF 9. Primary Agency for ESFs 5, 14 and 15.
- Establishes the state emergency management organization, to include staffing for normal activities and emergencies or disasters, and assists local jurisdictions in developing emergency management organizations.
- Establishes and maintains a 24-hour per day statewide warning capability and provides warning of impending emergencies or disasters to at risk political subdivisions.
- Maintains continuous preparedness and response capabilities through a 24-hour State Emergency Operations Officer (SEOO) system.
- Assures the continuity of resources (technical, administrative and material) to support 24-hour operations for a protracted period.
- Receives and processes requests from local jurisdictions for specific state and federal emergency and disaster related resources and services.
- Coordinates state resources to support local jurisdictions in need of supplemental emergency or disaster assistance.
- Identifies critical industry and infrastructures that may be impacted by disaster or required for emergency response efforts.
- Establishes and maintains an Emergency Public Information Program in accordance with ESF 15 External Affairs at the direction of and in collaboration with the Governor's Communications Office. Coordinates with local jurisdictions, as appropriate. Disseminates information to the public and the news media regarding personal safety or survival, emergency and state response actions and the details of disaster assistance programs. After an emergency or major disaster declaration by the President, state public information programs will be coordinated with those of the federal government.
- Prepares state disaster proclamations and the Presidential Disaster Request for the Governor's signature.
- Provides overall administration and coordination for the processing of applications for federal disaster assistance authorized by Public Law 93-288 and/or other enabling legislation.
- Facilitate the development of the state's PADs and coordinate the carrying out of those decisions during the intermediate and late phases of the response.
- Facilitate the Governor's adoption of the geopolitical boundaries defining the FCAs. These boundaries are recommended by the affected counties and coordinated with the SEOC. FCPs and TCPs are established by law enforcement agencies. This decision-

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- making process will include consultation with the state of Oregon, Office of Emergency Management, if necessary.
- In coordination with DOH, WSDA, WSP, the affected county(ies), and the state of Oregon, if required, facilitate the staffing and equipment requirements for carrying out traffic control measures, security measures, and food control measures.
- Conduct at regular intervals throughout the event, update briefings to the SEOC
 Executive Section on the latest sampling and monitoring data, recommendations from the
 MUDAC or UDAC, and other pertinent data. Based on these briefings, validate the
 boundaries of the FCAs or recommend refinements to these boundaries. Before altering
 the boundaries, solicit recommendations from the affected county(ies) and consult with
 the state of Oregon.
- Develop estimates of the probable duration and scope of the intermediate phase response, based on consultation with the facility and the Federal Emergency Management Agency (FEMA). Share these estimates with the affected jurisdictions so all state and local jurisdictions can identify the staffing patterns necessary to accomplish shift changes, and resource requests requiring action by the state or federal governments.
- Coordinate the dissemination of public information with the ingestion pathway county(ies) at regular intervals throughout the intermediate phase.
- Provide operational information to the counties.

National Guard

• Support the Washington State Patrol (WSP) in traffic control, evacuation, mobile communications, and other areas. Assist local governments as necessary. Specific tasks in support of WSDA and DOH operations in the Food Control Areas (FCAs) also may be assigned.

4. Washington State Patrol

- Conduct traffic control.
- Assist local law enforcement efforts, and coordinate the transportation of samples.
- Provide supplemental enforcement services at the TCPs with available resources.
- Assist WSDA and DOH representatives at Food Control Points (FCPs).
- Coordinate the provision of additional state law enforcement resources to local law enforcement agencies, when requested. This includes the coordination of law enforcement resources with affected counties and the state of Oregon.

5. Washington State Department of Transportation (WSDOT)

• Coordinate transportation missions, when tasked, as prescribed by the Washington State Comprehensive Emergency Management Plan (CEMP). Washington State Department of

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Transportation Emergency Operating Procedures, established in WSDOT Disaster plan, is designed to carry out this function.

 Coordinate with WSP for traffic control resources and provide other transportation resources, as necessary. Ensure barricades, road signs, highway rerouting information and equipment necessary to redirect traffic from the FCAs is available. The need for longterm rerouting of interstate or intrastate traffic to avoid travel in or near specific areas will be addressed by WSDOT in consultation with WSP.

6. Adams, Benton, Franklin, Grant, Kitsap, Klickitat, Kittitas, Snohomish, Walla Walla, Yakima Counties

- Consult with the state regarding the development and implementation of PADs.
- Consult with the county extension agent to identify and locate milk producers, vegetable
 growers, fruit growers, and home gardeners not licensed by the state to carry out
 protective actions for this sector of the agricultural community. The county extension
 agent will assist the state in determining the impact on the food chain as well as
 implement the PADs for the state.
- Develop and submit recommendations to the state on the FCA boundaries and the locations for FCPs and TCPs.
- Identify and commit local law enforcement resources for FCPs. Request supplemental law enforcement support, when necessary.
- Coordinate the application of the PADs, requesting additional resources from the state, as needed.
- Implement ingestion PADs. PADs are the primarily responsibility of the affected county(ies). State resources may be made available to support such application, if requested. If state resources are fully committed, the state will request federal resources.

7. Adjacent States/Provinces

Washington State's emergency response to facility incidents includes coordinating PADs with the states and provinces adjacent to Washington State. Central to these relationships is the coordination between Washington and Oregon. Representatives from neighboring states may be present in the adjacent state's EOC to assist in the coordination of the decision-making process and the application of protective measures. Public information will be closely coordinated with Oregon State or other affected jurisdictions to ensure consistent messages are being delivered to the public.

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ANNEX F, APPENDIX 1

GOVERNOR'S ORDER

Т	ΓHIS IS AN EXAMPLE	
Governor	Date	
The Washington State Recovarea as the contamination pro	very Task Force (RTF) will reduce the boundarion of the allows.	es of the food control
The boundaries of the food co	control areas are:	
proclamation, to (facility name) has created county(ies)) and pursuant to Washington, I hereby order to preserve and maintain life, he directed to stop all vehicles a transporters will be directed to its point of origin. Individuall be asked to return the food access control points.	wit: the release of contaminants as a result of the conditions which threaten the health and safety of the authority vested in me by Section 43.06.220 the establishment of food control areas as described the establishment of food control areas. Law enfort attempting to depart from the food control areas, to return any food produced or grown within the duals transporting small amounts of food for perfood to its point of origin or to present it for collections food grown, produced, or processed within the feed for transport by the Washington State Depart	of people in (list O, Revised Code of bed below to help reement agencies are Commercial food e food control areas sonal consumption ection at designated Good control areas
2	npetent authority of the deposition of radiologicathe area described by emergency	al and/or chemical

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ANNEX F, APPENDIX 2

FOOD SURRENDER STATEMENT

AGRICULTURE EMBARGO AND HOLD ORDER

DEPARTMENT OF AGRICULTURE	DEPARTMENT OF HEALTH
MAILSTOP 42560	MAILSTOP 47800
OLYMPIA, WASHINGTON 98504 - 2560 (360) 902-1800	OLYMPIA, WASHINGTON 98504 - 7800 (360) 586-5864
Date:	
Due to suspected adulteration by a radioactive radioactivity or a toxic chemical, the follows:	we or a chemical substance caused by an accidental release ing food items:
	posed of, or transported from the Food Control Areasion from the Departments of Agriculture/ Health, or
Food Control Area Description:	
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The above-described food shall be stored as follows:	ows:
It shall be unlawful to remove, alter, or destroy agriculture food product from the Food Contro Departments of Agriculture/Health, or by written	l Area without written permission from
Agriculture Authority:	Phone:
Health Authority:	Phone:
By order of RCW 43.70.180 and RCW 69.04.11	
	0-120

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Acronyms and Definitions	1/12/2018

Appendix 1 – Acronyms and Definitions

Summary of Changes:

• Highlighted sections identify added or modified text.

Acronyms

AAG Assistant Attorney General

AAR-IP After Action Report-Improvement Plan

ACCESS A Central Computerized Enforcement Service System

ACP Access Control Point AG Attorney General

ALARA As Low As Reasonably Achievable

AMS Aerial Measuring System ANI American Nuclear Insurers APA Area of Planning Attention

APCO Association of Public-Safety Communications Officials, International

ARC American Red Cross

ARES Amateur Radio Emergency Service

ARM Aerial Radiological Monitor

AWC Washington State Alert and Warning Center

CAP Corrective Action Program

CBRNE Chemical, Biological, Radiological, Nuclear, and Explosive

CDC Centers for Disease Control and Prevention
CEDE Committed Effective Dose Equivalent

CEMNET Comprehensive Emergency Management Network
CEMP Comprehensive Emergency Management Plan
CEO Chief Elected Official / Chief Executive Officer

CGS Columbia Generating Station

CIKR Critical Infrastructure Key Resources

COG Continuity of Government CPG Comprehensive Planning Guide

CST Civil Support Team

DAC Dose Assessment Center (also see UDAC and MUDAC)

DHHS U.S. Department of Health and Human Services

DHS U.S. Department of Homeland Security

DIL Derived Intervention Level

DMORT Disaster Mortuary Operational Response Team

DOD U.S. Department of Defense

DOH Washington State Department of Health

DOI U.S. Department of Interior
DRD Direct Reading Dosimeter
EAL Emergency Action Level
EAS Emergency Alert System
ECC Emergency Control Center
ECC Emergency Coordination Center

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ECC Emergency Communications Center ECL Emergency Classification Level

EFSEC Energy Facility Site Evaluation Council

EEG Exercise Evaluation Guide
EIS Environmental Impact Statement

EMAC Emergency Management Assistance Compact

EMC Emergency Management Council

EMD Emergency Management Division, Washington Military Department

EMS Emergency Medical Services
EMT Emergency Medical Technician

EN Energy Northwest ENW Energy Northwest

EOC Emergency Operations Center EOF Emergency Operation Facility EOP Emergency Operations Plan

EPA U.S. Environmental Protection Agency

EPHA Emergency Preparedness Hazards Assessment

EPZ Emergency Planning Zone

ERO Emergency Response Organization ESF Emergency Support Function

EW Emergency Worker

EW/AC Emergency Worker / Assistance Center

F/ASC Finance / Admin Section Chief, Incident Command System

FBI Federal Bureau of Investigation

FCA Food Control Area FCB Food Control Boundary

FCC U.S. Federal Communications Commission

FCO Federal Coordinating Officer

FCP Food Control Point

FDA U.S. Food and Drug Administration

FE Functional Exercise

FEMA Federal Emergency Management Agency FIPS Federal Information Processing Standard

FNF Fixed Nuclear Facility

FRMAC Federal Radiological Monitoring and Assessment Center FRPCC Federal Radiological Policy Coordinating Committee

FSE Full-Scale Exercise GE General Emergency

GSA U.S. General Services Administration

HAB Hostile Action Based

HazMat Hazardous Material (also HAZMAT)

HSEEP Homeland Security Exercise and Evaluation Program

HSPD Homeland Security Presidential Directive

HUD U.S. Department of Housing and Urban Development

IC Incident Commander
ICP Incident Command Post
ICS Incident Command System
IED Improvised Explosive Devise

IMAAC Interagency Modeling and Atmospheric Advisory Center

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IMAT Incident Management Assistance Team (replaces ERT)
IMT Incident Management Team, Incident Command System

IND Improvised Nuclear Device

JFO Joint Field Office

JIC Joint Information Center
JIS Joint Information System
JOC Joint Operations Center

KI Potassium Iodide

LEPC Local Emergency Planning Committee
LERN Law Enforcement Radio Network
LETS Law Enforcement Teletype System

LSC Logistics Section Chief, Incident Command System

MAC Multi-Agency Coordination

MACC Multi-Agency Coordination Center
MACG Multi-Agency Coordination Group
MEDNET Medical Emergency Delivery Network

MOA Memorandum of Agreement MOU Memorandum of Understanding

MUDAC Meteorological Unified Dose Assessment Center (also see DAC, UDAC)

NARAC National Atmospheric Release Advisory Center

NAWAS National Warning System
NCS National Communication System

NDA National Defense Area

NETC National Emergency Training Center NGO Non-governmental Organization NIMS National Incident Management System NNPP Naval Nuclear Propulsion Program

NOAA U.S. National Oceanic and Atmospheric Administration

NOUE Notification of Unusual Event

NRC U.S. Nuclear Regulatory Commission

NRF National Response Framework

NUREG U.S. Nuclear Regulatory Commission Regulation

NWS National Weather Service, U.S. National Oceanic and Atmospheric Administration

ODOT Oregon Department of Transportation
OEM Oregon Emergency Management
ORO Offsite Response Organization

ORP Office of Radiation Protection, Washington State Department of Health

OSC On-Scene Coordinator OSC Operations Section Chief OSC Operations Support Center

OSHA Occupational Safety and Health Administration

PAD Protective Action Decision
PAG Protective Action Guide
PAO Public Affairs Officer

PAR Protective Action Recommendation

PIO Public Information Officer

PNEMA Pacific Northwest Emergency Management Arrangement

PPE Personal Protective Equipment PSAP Public Safety Answering Point

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PSC Plans Section Chief, Incident Command System

PSNS&IMF Puget Sound Naval Shipyard and Intermediate Maintenance Facility

PZ Precautionary Zone, U.S. Naval Nuclear Propulsion Program

R Roentgen

RAC Regional Assistance Committee RAD Radiation Absorbed Dose

RACES Radio Amateur Civil Emergency Services

RAP Radiological Assistance Program
RCW Revised Code of Washington
RDD Radiological Dispersal Device
REM Roentgen Equivalent in Man

REP Radiological Emergency Preparedness
RERT Radiological Emergency Response Team
RRCC Regional Response Coordination Center

RRT Regional Response Team

RRTF Recovery and Restoration Task Force

SA Salvation Army
SAE Site Area Emergency
SCO State Coordinating Officer

SEOO Washington State Emergency Operations Officer SEOC Washington State Emergency Operations Center

SME Subject Matter Expert TCP Traffic Control Point

TEDE Total Effective Dose Equivalent
TLD Thermoluminescent Dosimeter

TTX Table Top Exercise UC Unified Command

UDAC Unified Dose Assessment Center (see also DAC and MUDAC)

UE Unusual Event

USDA U.S. Department of Agriculture

USDHS U.S. Department of Homeland Security

USDOC U.S. Department of Commerce USDOD U.S. Department of Defense USDOE U.S. Department of Energy

USDOE-RL U.S. Department of Energy-Richland Operations

USDOT U.S. Department of Transportation USEPA U.S. Environmental Protection Agency

USNORTHCOM U.S. Northern Command

WAC Washington Administrative Code

WADOE Washington State Department of Ecology WADOH Washington State Department of Health

WAEMD State of Washington Military Department, Emergency Management Division

WAMAC Washington Mutual Aid Compact WNG Washington National Guard

WSDA Washington State Department of Agriculture WSDOH Washington State Department of Health

WSDOT Washington State Department of Transportation WSEMD Washington State Emergency Management Division

WSP Washington State Patrol

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Definitions

Term	Reference/ Source	Definition
Absorbed dose	REP Program Manual, Appendix B	When ionizing radiation passes through living tissue, some of its energy is imparted to the tissue, which absorbs it. The amount of ionizing radiation absorbed per unit mass of the irradiated tissue is called the absorbed dose. It is measured in rads and rems.
Access Control	REP Program Manual, Appendix B	All activities accomplished for the purpose of controlling entry or reentry into an area that has either been evacuated or is under a sheltering protective action decision to minimize the radiation exposure of individuals because of radiological contamination. This function is needed to prevent the general public from entering restricted areas (sheltered and/or evacuated) and permitting only emergency workers with essential missions and limited members of the general public to enter.
Access Control Points (ACP)	Benton County Franklin County EMD	Road intersections or other logistically viable points on the boundaries of a restricted area which enable law enforcement and other emergency workers to maintain access control into the restricted area. May be manned or unmanned.
Accident Assessment	REP Program Manual, Appendix B	The evaluation of the actual and potential consequences of a radiological incident.
Action Levels / Trigger	REP Program Manual, Appendix B Franklin County	A designated value whereby an individual is directed to perform a specific action. Also, the threshold for contamination levels that trigger the need for decontamination established in the plans/procedures.
Activation	Benton County	The process by which a facility is brought up to emergency mode from a normal mode of operation. Activation is completed when the facility is ready to carry out full emergency operations.
Activation of Personnel	REP Program Manual, Appendix B	The process by which emergency response personnel are notified of an incident and instructed to report for duty.
Activity	Health	The number nuclear disintegration's occurring in a radioactive material per unit of time. The standard measures of activity are the Curie or the Becquerel (SI).
Acute Health Effects	Health	(also called Nonstochastic, or deterministic effects) Radiation health effects which can be directly related to the absorbed dose. These effects occur at "high radiation" levels, and begin at a threshold level of radiation. Above the threshold, the severity of the effect is linearly related the dose. "Acute" refers to a dose received within one month or less.

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Term	Reference/ Source	Definition
Administration / Finance Section	REP Program Manual, Appendix B	As applied to an exercise planning team organized according to Incident Command System principles, the team members providing grant management and administrative support throughout exercise development. This group is also responsible for the registration process and coordinates schedules for the exercise planning team, the exercise planning team leader, participating agencies, and the host community or communities.
Advisories	EMD	Precautionary advice which is easily implemented at a low cost. Advisories can be issued during the early or intermediate phases in a geopolitically bound area large enough to encompass the entire area where contamination is expected. For example, a typical advisory would be the recommendation to place livestock on covered water and stored feed until further notice.
Advisory	Health	The primary purpose of an advisory is to minimize human radiation dose. Advisories do not require lab results. They may be based on possible contamination and may be issued for broad geographic areas.
AEGL-1	EMD	The airborne concentration (expressed in parts per million (ppm) or milligram/meter cubed) of a substance above which)i.e. between AEGL-1 and AEGL-2) it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic, non-sensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.
AEGL-2	EMD	The airborne concentration of a substance above which (i.e. between AEGL-2 and AEGL-3) it is predicted that the general population, including susceptible individuals, could experience irreversible or other serious, long-lasting adverse health effects, or an impaired ability to escape.
AEGL-3	EMD	The airborne concentration of a substance above which it is predicted that the general population, including susceptible individual, could experience life-threatening health effects or death.
Aerial Measuring System (AMS)	REP Program Manual, Appendix B	A U.S. Department of Energy asset consisting of an integrated remote-sensing capability for rapidly determining radiological and ecological conditions of large areas of the environment. In conjunction with modern laboratory and assessment techniques, state-of-the-art airborne equipment is used for extremely low-level gamma radiation detection, high-altitude photography, airborne gas and particulate sampling, and multi-spectral photography and scanning.

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Term	Reference/ Source	Definition
Air Sampling	Health	The collection and analysis of samples of air to measure its radioactivity or to detect the presence of airborne radioactive substances, particulate matter, vapors, or chemical pollutants.
Airborne Radioactive Material	Health	Radioactive material dispersed in the air in the form of dust, fumes, mist, vapor, or gases.
Airborne Radioactivity	REP Program Manual, Appendix B	Any radioactive material dispersed in the air in the form of dusts, fumes, mists, vapors, or gases.
ALARA	REP Program Manual, Appendix B Health	Acronym for "As Low As Reasonably Achievable," a basic concept of radiation protection that specifies that radioactive discharges from nuclear plants and radiation exposure to personnel be kept as far below regulation limits as feasible.
Alert	REP Program Manual, Appendix B	Licensee emergency classification level indicating that events are in process or have occurred that involve an actual or potential substantial degradation in the level of plant safety or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of intentional malicious dedicated efforts of a hostile act. Releases are expected to be limited to small fractions of the Environmental Protection Agency protective action guide exposure levels.
Alerting of Personnel	REP Program Manual, Appendix B	Transmission of a signal or message that places personnel on notice that an incident has developed that may require that they report for emergency duty.
Alerting the public	REP Program Manual, Appendix B	Activating an attention-getting warning signal through such means as sirens, tone alert radios, route alerting, and speakers on cars, helicopters, and boats.
Alpha Particle	REP Program Manual, Appendix B	A positively charged particle ejected spontaneously from the nuclei of some radioactive elements. It is identical to a helium nucleus that has a mass number of 4 and an electrostatic charge of plus 2. It has low penetrating power and short range. The most energetic alpha particle will generally fail to penetrate the skin. Alpha is hazardous when an alpha-emitting isotope is introduced into the body. Alpha particles are the least penetrating of the three common types of radiation (alpha, beta, and gamma) and can be stopped by a piece of paper (cannot penetrate skin).
Area Command	NRF Health	An organization established to oversee the management of multiple incidents that are each being handled by a separate Incident Command System organization or to oversee the management of a very large or evolving incident or that has multiple incident management teams engaged. The Area Command has the responsibility to set overall strategy and priorities, allocate critical resources according to priorities,

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		ensure that incidents are properly managed, and ensure that objectives are met and strategies followed. Area Command becomes Unified Area Command when incidents are multijurisdictional.
Area of Planning Attention	EMD NNPP	To assist State and local authorities in assessing the need for any preplanning in the vicinity of naval bases or shipyards where nuclear powered vessels are berthed, the Naval Nuclear Propulsion Program has designated Areas of Planning Attention. The areas of Planning Attention extend 0.5 mile around every location where nuclear powered vessels are normally berthed, (i.e., from the actual dock or pier where the ship is berthed - not from the shipyard or naval base property boundary). The 0.5-mile distance is based on detailed, conservative analysis of worst-case, but credible scenarios-the actual radius of impacted downwind area will most likely be smaller.
Assessment Actions	EMD	Actions taken during or after an incident or emergency to obtain and process information in order to conduct an effective emergency response and plan for recovery.
Assistance Center(s)	Benton County	Facilities established to provide services to the evacuating public. These services include radiation monitoring and, if necessary, decontamination assistance, and registration.
Assistance Center(s)	EMD	Facilities located outside the plume exposure pathway emergency planning zone wherein evacuees can receive first aid and assistance in obtaining food and lodging. Limited housing of evacuees is provided at assistance centers or at separate lodging facilities. (See also, Emergency Worker/Assistance Centers.)
Atmospheric Stability (low level)	EMD	This is a relative classification of the mixing of the air near the surface. This mixing has been measured as a standard deviation of wind direction changes or, in a more direct way, as the difference in air temperature at two reference heights (temperature gradient between 2 and 4 meters). Low stability is associated with smaller downwind hazard distances.
Atmospheric Stability Categories	EMD	Note: Categories A, B, and C are most common during the day. Categories D, E, and F are most common during the night. Category G is at night but is very rare. Category A: Extremely Unstable - Weather conditions are
		very unpredictable. Wind speed average one meter/second but is "gusty." The temperature rapidly decreases with altitude. This condition is called "superadiabatic." It is common on a hot, sunny day. Due to these conditions, a contamination plume would "loop" and be unpredictable.

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	Source		
		Category B: Moderately Unstable - Weather conditions are still unpredictable, but less than "A." Wind speeds average two meters/second, and is not as "gusty." The temperature still decreases, but not as rapidly with altitude. "Looping" of a plume would still occur, but would not be as severe. This condition is common on a sunny, warm day.	
		C. Category C: Slightly Unstable - Weather conditions are somewhat unpredictable. Wind speeds average five meters/second. A little gustiness may be expected. The temperature still decreases and looping of a contamination plume may occur, but progressively less pronounced than "A" or "B" categories. This is an average day, slightly cloudy.	
		Category D: Neutral - Weather conditions are more predictable. Wind speeds average five meters/second, with no expected gustiness. The temperature still decreases with altitude, but the change is less pronounced. At this point, the condition name changes from "superadiabatic" to "adiabatic." A contamination plume is more predictable, with minor "looping." This condition is common on an overcast day or night (heavy overcast).	
		Category E: Slightly Stable - Weather conditions turn more predictable than with "D." Wind speeds average three meters/second. The temperature does not change with altitude. This condition is called "isothermic." A contamination plume is easy to predict with this condition. "Coning" of the plume occurs. This condition generally occurs at night, and is considered an average night (partly cloudy).	
		Category F: Moderately Stable - Weather conditions become very predictable. Wind speeds average two meters/second. This is an inversion. Temperatures increase with altitude (opposite of an "A" class). With this condition, little vertical dispersion occurs, i.e., it does not reach the ground rapidly	
		Category G: Extremely Stable - This condition is very predictable, but rarely occurs. No wind blow, and the temperature increases rapidly with altitude. This condition may occur over a city, which acts even less pronounced than an "F" condition.	

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Term	Reference/ Source	Definition
Background Radiation	REP Program Manual, Appendix B	The level of naturally occurring radiation in the environment. Sources include air, water, soil, potassium-40 in the body and cosmic radiation from the sun. The usually quoted individual background radiation exposure in man's natural environment is an average of 125 millirem per year.
Beta Particle	REP Program Manual, Appendix B	A charged particle emitted from a nucleus during radioactive decay, with a mass equal to 1/1827 that of a proton. A negatively a charged beta particle is identical to an electron. A positively charged beta particle is called a positron. Large amounts of beta radiation may cause skin burns, and beta emitters are harmful if they enter the body. Most beta particles can be stopped by aluminum foil.
Bioassay	Health	The collection and analysis of human hair, tissue, nasal smears, urine, or fecal samples to determine the amount of radioactive material that might have been ingested by the body.
Boiling Water Reactor (BWR)	REP Program Manual, Appendix B	A nuclear reactor in which water, used both as coolant and moderator, is allowed to boil in the reactor vessel. The resulting steam is used directly to drive a turbine. Columbia Generating Station is a BWR.
Buffer Zone	Health	The area which falls between a measured or calculated isodose line and the surrounding geopolitical boundary that defines a relocation area or food control area.
Buffer Zone	REP Program Manual, Appendix B	An area adjacent to a restricted zone, to which residents may return, but for which protective measures are recommended to minimize exposure to radiation.
Buffer Zone (Medical Facilities)	REP Program Manual, Appendix B	An area (within a hospital or other medical facility) adjacent to the radiological emergency area (restricted zone) for which protective measures are recommended to minimize both exposure to radiation and the spread of radiological contamination to radiologically clean areas of the facility.
Corrective Action Program	EMD	A CAP is an element of improvement planning through which corrective actions from the AAR/IP are prioritized, tracked, and analyzed continuously until they have been fully implemented and validated.
Calculated Dose Line	EMD	An isodose line that is generated using dose assessment techniques and calculations. This line is not measured in the field directly.
Calculated Dose Line	Walla Walla County	An isodose line of radiation levels below background, which is determined by using measured dose levels in a series of calculations to determine an isodose line for the desired radiation dose.
Chain-of-custody form	REP Program Manual, Appendix B	The documentation of the transfer of samples from one organization and individual to another with respect to the

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Term	Reference/ Source	Definition
		name of the organization and individual and dates of acceptance and / or transfer of samples.
Check Source	REP Program Manual, Appendix B	A radioisotope with a known, relatively fixed activity level used to determine the responsiveness of survey instruments.
Columbia Generating Station (CGS)	EMD Agriculture Franklin County	The nuclear power-generating facility operated by the Energy Northwest, on the Hanford site area. Formerly known as Washington Nuclear Plant -2 (WNP-2) and Washington Public Power Supply System (WPPSS)
Command Staff	REP Program Manual, Appendix B	As applied to an exercise planning team organized according to Incident Command System principles, the team members responsible for coordinating all exercise planning activities. Within this group is the exercise planning team leader, who assigns exercise activities and responsibilities, provides guidance, establishes timelines, and monitors the development process. The safety controller and the liaison coordinator report directly to the exercise planning team leader.
Commercial Nuclear Power Plant (NPP)	REP Program Manual, Appendix B	A facility licensed by the Nuclear Regulatory Commission to use a nuclear reactor to produce electricity for sale to the general public. While there are many types of nuclear facilities, FEMA's responsibility for offsite planning and preparedness and the guidance in the REP Program Manual are applicable only to commercial nuclear power plants.
Committed Dose	REP Program Manual, Appendix B	The dose that will be received over a period of 50 years from the ingestion or inhalation of a particular quantity of a radionuclide or a specific mix of radionuclides.
Committed Dose Equivalent (CDE)	REP Program Manual, Appendix B	The dose equivalent to organs or tissues of reference that will be received from an intake of radioactive material by an individual during the 50-year period following ingestion.
Committed Effective Dose Equivalent (CEDE)	REP Program Manual, Appendix B	 The sum of the 50-year committed doses to individual organs from inhalation (or ingestion) of radionuclides, where the individual organ doses have been weighted so that the associated risk of fatal cancer can be added to the risk of fatal cancer from whole-body dose. The radiation dose committed over a "lifetime" (50 years for adult, 70 years for infant) to a person via radiation of
Comprehensive Emergency Management Plan (CEMP)	EMD	organs from inhalation or ingestion of radioactive material. Framework for statewide migration, preparedness, response and recovery activities to facilitate interoperability between local, state, and federal governments.
Congregate Care (CC)	REP Program Manual, Appendix B	The provision of temporary housing and basic necessities for evacuees.

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Congregate Care Center (CCC)	REP Program Manual, Appendix B EMD Agriculture	 A facility for temporary housing, care, and feeding of evacuees. A public or private facility that is predesignated and managed by the American Red Cross during an emergency,
		where evacuated or displaced persons are housed, and fed.
Contaminated	REP Program Manual, Appendix B	The condition resulting from the adhesion of radioactive particulates to the surface of structures, areas, objects, or personnel.
Contaminated, Injured, or Exposed Individuals	REP Program Manual, Appendix B	Individuals who are: (1) contaminated with radioactive material that cannot be removed by the simple methods described in NUREG-0654/FEMAREP-1, Evaluation Criteria J.12 and K.5.b; or (2) contaminated and otherwise physically injured. Individuals exposed to high levels of radiation may be injured but not contaminated.
Contamination	REP Program Manual, Appendix B	Refers to radioactive materials not in their intended containers. Whether the contamination is considered "fixed" or "loose" depends on the degree of effort required to unfix or remove the contamination from a surface.
Control Cell	EMD	Exercise personnel who facilitate interfaces with nonparticipating groups, such as ORO officials and persons with disabilities and access/functional needs.
Controlled Area	REP Program Manual, Appendix B	A defined area in which the occupational exposure of personnel to radiation or radioactive material is under the supervision of an individual in charge of radiation protection.
Controller	REP Program Manual, Appendix B	The individual directing the flow of scenario events in order to ensure that an exercise is conducted in accordance with the agreed-upon exercise objectives and the extent of play.
Controller inject	REP Program Manual, Appendix B	The introduction of events, data, and information into exercises to drive the demonstration of objectives.
Corrective Action	REP Program Manual, Appendix B	Corrective actions are the concrete, actionable steps outlined in Improvement Plans that are intended to resolve preparedness gaps and shortcomings experienced in exercises or real-world events.
Corrective Actions	Health	Those emergency measures taken to lessen or terminate an emergency situation in order to prevent an uncontrolled release of radioactive material or to reduce the magnitude of a release (e.g., shutting down equipment, firefighting, repair, and damage control).

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Term	Reference/ Source	Definition
Counting	REP Program Manual, Appendix B	Using an instrument to detect individual particles or gamma rays which interact with the detector on the instrument. For example, ambient radiation can be counted, or, alternatively, the radiation emitted by specific samples can be counted in units of counts per minute (cpm) or counts per second (cps).
Crash Telephone System	Franklin County	A closed circuit phone system used in selected Emergency Operations Centers (EOC).
Curie	REP Program Manual, Appendix B	The basic unit of measure for radiation activity. A Curie is equal to 37 billion disintegrations per second, which is also the rate of decay of 1 gram of Ra-226 (Radium). A Curie is also a quantity of any radionuclide that decays at a rate of 37 billion disintegrations per second. Several commonly used fractions of the curie include: millicurie: 1/1,000 of a curie, (one thousandth of a curie, abbreviated mCi) microcurie: 1/1,000,000 of a curie, (one millionth of a
		curie, abbreviated µCi) nanocurie: 1/1,000,000,000 of a curie, (one billionth of a curie, abbreviated nCi) picocurie: 1/1,000,000,000,000 of a curie (one trillionth of a curie, abbreviated pCi)
Decontamination	REP Program Manual, Appendix B EMD CEMP	The process of making any person, object, or area safe by absorbing, destroying, neutralizing, making harmless, or removing chemical or biological agents, or by removing radioactive material clinging to or around it.
Delayed Health Effects (Stochastic)	Health	Radiation health effects that are based on the dose received AND the probability of those effect occurring at the given dose. Stochastic effects have no threshold and apply mainly to low levels of radiation. They can occur at any level of radiation as a function of probability.
Department of Health (DOH)	Benton County Franklin County	A Washington State agency created by statute to provide health and social services to the citizens of Washington. The DOH Office of Radiation Protection (ORP) is the lead Washington State emergency response agency in case of a nuclear facility emergency.
Derived Intervention Levels (DILs)	REP Program Manual, Appendix B	Concentration derived from the intervention level of dose at which the Food and Drug Administration recommends consideration of protective measures. DILs correspond to the radiation concentration in food throughout the relevant time period that, in the absence of any intervention, could lead to an individual receiving a radiation dose equal to the protective action guide or in international terms the intervention levels of dose.

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Term	Reference/	Definition
Direction and Control	REP Program Manual, Appendix B	The management of emergency functions within a particular context (e.g., emergency operations center) through leadership and use of authority.
Disabled Individuals		Individuals, who are deaf, blind, non-ambulatory, or require support (e.g., crutches), frail, dependent upon life-support systems, or mentally or emotionally impaired.
Disaster	EMD CEMP	An event or set of circumstances which: (1) demands immediate action to preserve public health, protect life, protect public property, or to provide relief to any stricken community overtaken by such occurrences or (2) reaches such a dimension or degree of destructiveness as to warrant the Governor proclaiming a state of emergency pursuant to RCW 43.06.010.
Dose	Agriculture	A generic term denoting a quantity of energy absorbed from exposure to ionizing radiation. (The term when expressed in Roentgens relates to the amount of gamma or x-ray radiation required to produce a quantity of ionizations in a volume of air. Expressed in rads it relates to an amount of absorbed dose to any material. Expressed in rem it is a dose equivalent which relates absorbed dose to the biological effect in human tissue. Exposure to a rad of alpha will cause more damage to tissue than a rad of gamma radiation. Exposure to a rem of gamma will cause the same amount of damage to tissue.)
Dose	Health	A quantity of radiation received. The term is often used in the sense of the dose rate, expressed in [Roentgens/hour] (R/hr), which is a measure of "energy" that is being producing in air. This is different from the absorbed dose [Rads] that represents the energy absorbed from the radiation in material. Furthermore, the dose equivalent [rem], is a measure of the biological damage to living tissue from the radiation dose exposure.
Dose	REP Program Manual, Appendix B	The quantity of energy absorbed from ionization per unit mass of tissue. The rad is the unit of absorbed dose.
Dose Assessment Center (DAC)	EMD Agriculture	An area within or near the facility which houses the personnel responsible for coordinating radiological monitoring teams, collecting radiological monitoring data, calculating dose projections, and recommending protective actions for the Emergency Planning Zones. At the Energy Northwest, Columbia Generating Station, this area is referred to as Meteorological Unified Dose Assessment Center (MUDAC). For Naval Nuclear Propulsion Program Installations, dose assessment will be conducted at the Emergency Control Center (ECC). Also see Meteorological

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Term	Reference/ Source	Definition
		Unified Dose Assessment Center (MUDAC) and Unfired Dose Assessment Center (UDAC)
Dose commitment	Agriculture Franklin County	The total dose equivalent which may be expected to accrue to an organ of interest, such as the thyroid, as a result of inhalation, ingestion, or immersion of a source of radiation during an event. The dose commitment includes the effect of retaining radioactive material in the body after the conclusion of the event.
Dose equivalent	Benton County	The product of the absorbed dose in rad, a quality factor related to the biological effectiveness of the radiation involved and any other modifying factors.
Dose Equivalent	Health	The amount of biological damage to human tissue caused by radiation. The absorbed radiation dose to human tissue times the quality factor. The units of the dose equivalent are the REM (R) or sievert (Sv).
Dose Equivalent	REP Program Manual, Appendix B	 A term used to express the amount of effective radiation when modifying factors have been considered. The product of absorbed dose multiplied by a quality factor multiplied by a distribution factor. It is expressed numerically in rem. The product of the absorbed dose in rad, a quality factor related to the biological effectiveness of the radiation involved and any other modifying factors.
Dose Equivalent	Franklin County	A radiation dose to the whole body or a single organ that has been adjusted to make it equivalent in risk of cancer to the amount dose from gamma radiation that would cause
Dose limits for emergency workers	REP Program Manual, Appendix B	The allowable accumulated dose during the entire period of the emergency. Action to avoid exceeding the limit is taken based on actual measurements of integrated gamma exposure. In contrast, protective action guides are trigger / action levels of projected dose at which actions are taken to protect the public. These actions are taken prior to the dose being received.
Dose Rate	REP Program Manual, Appendix B	The radiation dose delivered per unit time. The dose rate may be expressed numerically in rads per second or rads per hour.
Dosimeter	REP Program Manual, Appendix B	A portable device such as a thermoluminescent film badge or direct-reading ionization chamber used for measuring and registering the total accumulated exposure to ionizing radiation.
Dosimetry	Health	The theory and application of the principles and techniques involved in the measurement and recording of radiation doses. Its practical aspect is concerned with the use of various types of radiation instruments with which measurements are made.

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Term	Reference/	Definition
	Source	
Dosimetry	REP Program Manual, Appendix B	The measurement of radiation doses. It applies to both the devices used (dosimeters) and to the techniques.
Drill	REP Program Manual, Appendix B	A coordinated, supervised activity usually employed to validate a specific function or capability in a single agency or organization. Drills are commonly used to provide training on new equipment, validate procedures, or practice and maintain current skills.
Early Phase	REP Program Manual, Appendix B	(also referred to as Plume or Emergency Phase) The period at the beginning of a nuclear incident when immediate decisions for effective use of protective actions are required and must therefore usually be based primarily on the status of the nuclear power plant and the prognosis for worsening conditions. When available, predictions of radiological conditions in the environment based on the condition of the source or actual environmental measurements may also be used. Precautionary actions may precede protective actions based on the protective action guides. This phase lasts hours to several days and ends when the radioactive release ends.
Emergency	REP Program Manual, Appendix B EMD CEMP	For the purposes of defining an emergency at a nuclear power plant, an unexpected event during the operation of a nuclear power plant that has a significant effect on the safety of the facility, personnel or the public. For the purposes of the State of Washington declaring an emergency, an event or set of circumstances which: (1) demands immediate action to preserve public health, protect life, protect public property, or to provide relief to any stricken community overtaken by such occurrences or (2) reaches such a dimension or degree of destructiveness as to warrant the Governor proclaiming a state of emergency pursuant to RCW 43.06.010.
Emergency Presidential Declaration	EMD CEMP	A formal declaration by the President a major disaster or emergency exists. The declaration is made upon the request for such a declaration by the Governor and with verification of the Federal Emergency Management Agency preliminary damage assessments.
Emergency Action Levels (EALs)	NRC	Definition used for Nuclear Power Plants and the Radiological Emergency Preparedness program. A predetermined, site specific, observable threshold for a plant Initiating Condition that places the plant in a given emergency classification level. An EAL can be: an instrument reading; an equipment status indicator; a measurable parameter (on-site or off-site); a discrete, observable event; results of analyses; entry into specific emergency operating procedures; or another phenomenon

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		which, if it occurs, indicates entry into a particular emergency classification level.
Emergency Action Levels (EALs)	DOH	Radiological dose rates; specific levels of airborne, waterborne or surface deposited concentrations of radioactive materials; or specific instrument indications that are used to designate a particular class of emergency.
Emergency Action Levels (EALs)	Hanford Emergency Management Plan	Definition used by the Department of Energy for the Hanford Site. The EALs are specific, predetermined, observable criteria used to detect, recognize, and determine the classification of Hazardous Material Operational Emergencies identified by the EPHA. The EALs are typically identified as either event-based or symptom - based. The distinction arises from the available methods of detecting and recognizing the initiating conditions of the event. The development of symptom-based EALs is the preferred approach recognizing that there may be some initiating conditions that require an event-based approach. Initiating conditions must be identified specifically in EAL procedures and must be observable and recognizable in a timely manner by responsible personnel.
Emergency Alert System (EAS)	REP Program Manual, Appendix B EMD CEMP	A system of radio and television stations responsible for providing official government instructions to the public (formerly the Emergency Broadcast System).
Emergency Classification Level (ECL)	REP Program Manual, Appendix B	Classifications used by the licensee to classify incidents. The four ECLs are Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency.
Emergency Control Center (ECC) Emergency information	EMD NNPP REP Program Manual, Appendix B	Where emergency directions and response are coordinated for the Naval Nuclear Propulsion Program. Material designed to improve public knowledge or understanding of an emergency.
Emergency Instructions	REP Program Manual, Appendix B	Information provided to the general public during an emergency pertaining to Protective Action Recommendations for actions such as evacuation and sheltering.
Emergency Management	EMD CEMP	The preparation for and the carrying out of all emergency functions, other than functions for which military forces are primarily responsible, to mitigate, prepare for, respond to and recover from emergencies and disasters, to aid victims suffering from injury or damage resulting from disasters caused by all hazards, whether natural or technological, and to provide support for search and rescue operations for persons and property in distress.

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Term	Reference/ Source	Definition
Emergency Management Division (EMD)	EMD	A subdivision of the Washington State Military Department designated to preserve health and safety of the state's citizens, economic prosperity, property, and environment.
Emergency Operations Center (EOC)	REP Program Manual, Appendix B	1. A facility that is the primary base of emergency operations for an offsite response organization in a radiological emergency.
	EMD	2. The physical location at which the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, and medical services), by jurisdiction (e.g., federal, state, regional, tribal, city, county), or some combination thereof.
Emergency Operations Facility (EOF)	REP Program Manual, Appendix B	A facility that is the primary base of emergency operations for the Licensee in a radiological incident. An onsite operations facility provided by the NRC Licensee to facilitate the management of an overall emergency response. Utility and state officials and a very limited number of Federal personnel may be accommodated.
Emergency Phase	REP Program Manual, Appendix B	see "early phase."
Emergency Planning Zone	Walla Walla County	Columbia Generating Station specific indications, conditions, or instructions readings, which are utilized to determine emergency classifications. United States Department of Energy - Richland (DOE-RL) specific, predetermined, observable criteria used to detect, recognize and determine the classification of operational emergencies identified by the hazard assessment. Emergency Action Levels (EAL) are typically identified as either event-based or symptom-based.
Emergency Planning Zone (EPZ)	REP Program Manual, Appendix B	A geographic area surrounding a commercial nuclear power plant for which emergency planning is needed to ensure that prompt and effective actions can be taken by offsite response organizations to protect the public health and safety in the event of a radiological accident. The plume pathway EPZ is approximately 10 miles in radius, while the ingestion pathway EPZ has a radius of approximately 50 miles.
Emergency Protective Actions	REP Program Manual, Appendix B	Protective actions to isolate food to prevent its introduction into commerce and to determine whether condemnation or other disposition is appropriate.

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Term	Reference/ Source	Definition
Emergency Support Function (ESF)	EMD	The functional approach that groups the types of assistance a state and/or local jurisdiction is most likely to need, (e.g. mass care, health and medical services) as well as the kind of federal operations support necessary to sustain state response actions (e.g., transportation, communications). ESFs are expected to support one another in carrying out their respective missions.
Emergency Work	Benton County Franklin County	That work which must be done immediately to save lives and to protect improved property and public health and safety, or to avert or lessen the threat of a major disaster.
Emergency Worker(s)	REP Program Manual, Appendix B Agriculture	1. Individual who has an essential mission to protect the health and safety of the public who could be exposed to ionizing radiation from the plume or from its deposition. Some examples of emergency workers are: radiation monitoring personnel, traffic control personnel, fire and rescue personnel, including ambulance crews; medical facilities personnel, emergency operations center personnel, personnel carrying out route alerting procedures; and essential services or utility personnel; and evacuation vehicle (e.g., bus, van, etc.) drivers. Note that evacuation vehicle drivers who will be transporting individuals or groups out of the emergency planning zone and who are not expected to return to the emergency planning zone are not considered "Emergency Workers." 2. Any person, including, but not limited to, an architect registered under chapter 18.08 RCW or a professional engineer registered under Chapter 18.43 RCW, who is registered with a local emergency management organization or the department holds an identification card issued by the local emergency management director or the department for the purpose of engaging in authorized emergency management activities or is an employee of the state of Washington or any political subdivision thereof who is called upon to perform emergency management activities.
Emergency Worker Center	EMD	A facility where emergency workers will assemble for assignments, equipment, and necessary training. The facility is also equipped to monitor and decontaminate personnel as required. (See EWAC.)
Emergency Worker/Assistance Center (EWAC)	Benton County	A location providing services for both emergency workers and the public. See definitions for emergency worker center, assistance center and shelter.
Energy Northwest (ENW)	Benton County Franklin County Agriculture	A public corporation operating the only commercial nuclear power plant in the State of Washington. The facility, Columbia Generating Station, is located on land leased from the United States Department of Energy,

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Reference/ Source	Definition
	Hanford Site. Formerly known as Washington Nuclear Plant -2 (WNP-2), the Washington Public Power Supply System (WPPSS), or the Supply System.
REP Program Manual, Appendix B	These include communications, direction and control of operations, alert and notification of the public, accident assessment, information for the public and media, radiological monitoring, protective response, and medical and public health support
EMD	All facilities that would lose investments, such as animals or facilities that would cause an emergency if people were restricted from working there. Examples Hanford Nuclear plants, dairies, fish hatchery and utility companies.
REP Program Manual, Appendix B	A population protection strategy involving orderly movement of people away from an actual or potential hazard, and providing reception centers for those without their own resources for temporary relocation.
REP Program Manual, Appendix B	An estimate, contained in emergency plans / procedures, of the time that would be required to evacuate general persons and persons with access / functional needs within the plume pathway emergency planning zone under emergency conditions.
REP Program Manual, Appendix B	An area located approximately 5 to 10 miles from a nuclear power plant and specifically designated in an offsite response organization's plans / procedures for which FEMA has granted an exception to the requirement for the capability to complete alert and notification of the public within 15 minutes. Most exception areas are recreation areas or similar low-population within the emergency planning zone. Offsite response organizations must have the capability to complete alert and notification of the public in approved exception areas within 45 minutes.
REP Program Manual, Appendix B EMD	The area surrounding a nuclear reactor in which the facility operator has the authority to determine all activities, including exclusion or removal of personnel and property from the area. A specific area off-limits (expressed in miles) from a nuclear power plant.
	Naval Nuclear Propulsion Program facilities a combination of the outer base boundary and the Controlled Industrial Area (CIA) form the Exclusion Area.
REP Program Manual, Appendix B	An instrument to train for, assess, practice, and improve performance in prevention, protection, mitigation, response, and recovery capabilities in a riskfree environment. Exercises can be used for testing and validating policies, plans, procedures, training, equipment, and interagency agreements; clarifying and training personnel in roles and responsibilities; improving
	REP Program Manual, Appendix B

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Term	Reference/ Source	Definition
		interagency coordination and communications; improving individual performance; identifying gaps in resources; and identifying opportunities for improvement.
Exercise Evaluation Guide	REP Program Manual, Appendix B	Documents that support the exercise evaluation process by providing evaluators with consistent standards for observation, analysis, and After-Action Report/ Improvement Plan development. Each EEG is linked to a core capability.
Exercise Issue	REP Program Manual, Appendix B	A problem in organizational exercise performance that is linked with specific Planning Standards or associated NUREG-0654/FEMA-REP-1 Evaluation Criteria. There are two categories of exercise issues: Level 1 and Level 2 Findings.
Exposure	REP Program Manual, Appendix B	The absorption of radiation or ingestion of a radionuclide. The exposure at a given point is a measurement of radiation in relation to its ability to produce ionization. The unit of measurement of the exposure is the roentgen. A measure of radiation dose received by a person, usually broken down and used to refer to whole-body exposure compared with exposure to the hands only.
Exposure Rate	REP Program Manual, Appendix B	The amount of gamma radiation that an individual would receive in one hour as measured in air (typically expressed in units of milli-R per hour or R per hour).
Facility	REP Program Manual, Appendix B	Any building, center, room(s), or mobile unit(s) designed and equipped to support emergency operations.
Federal Coordinating Officer (FCO)	REP Program Manual, Appendix B	The Federal official appointed by the President upon declaration of a major disaster or emergency under Public Law 93-288 to coordinate the overall Federal response.
Federal Emergency Management Agency (FEMA)	REP Program Manual, Appendix B	The agency responsible for establishing Federal policies for and coordinating all civil defense and civil emergency planning, management, mitigation, and assistance functions of executive agencies. FEMA assists state, local, and tribal agencies in their emergency planning. Its primary role is one of coordinating Federal, state, local, tribal, and volunteer response actions.
Federal or Other Support Organizations	REP Program Manual, Appendix B	Federal agencies such as FEMA, the U.S. Department of Energy, the U.S. Nuclear Regulatory Commission, or any other governmental, quasi-governmental, or private organization (American Red Cross, Civil Air Patrol, Radio Amateur Civil Emergency Services, cooperating state compact radiological monitoring or sampling personnel, and national or university laboratories) that may provide assistance during radiological emergencies.

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Term	Reference/ Source	Definition
Federal Radiological Monitoring and Assessment Center (FRMAC)	REP Program Manual, Appendix B	A center usually located at an airport near the scene of a radiological emergency from which the Department of Energy Offsite Technical Director conducts the National Response Framework response. This center need not be located near the onsite or Federal-state operations centers as long as its operations can be coordinated with them.
Federal Radiological Monitoring and Assessment Plan (FRMAP)	REP Program Manual, Appendix B	A former plan to provide coordinated radiological monitoring and assessment assistance to the offsite response organizations in response to radiological REP Program Manual Page B-13 emergencies. The Federal Radiological Emergency Response Plan superseded the FRMAP in 1996. The Federal Radiological Emergency Response Plan has been superseded by the National Response Framework.
Field Team Coordinator	REP Program Manual, Appendix B	The individual who manages the functions of field teams and coordinates data with the dose assessment group located in emergency operation centers and facilities.
Final Safety Analysis Report (FSAR)	Health	An extensive document produced by a nuclear facility operator which includes design, environmental, emergency and safety information about the facility.
Fixed (reproducible) geometry	REP Program Manual, Appendix B	A method of measuring levels of radioactivity in samples by using a standard size or volume of samples held at a fixed distance from the measuring instrument.
Fixed contamination	REP Program Manual, Appendix B	Contamination that remains after loose contamination has been removed by decontamination.
Fixed Nuclear Facility (FNF)	REP Program Manual, Appendix B Agriculture	1. A stationary nuclear installation that stores, uses, or produces radioactive materials in its normal operations. Fixed nuclear facilities include commercial nuclear power plants and other fixed facilities.
	S tara	2. In Washington it also includes facilities under the Naval Nuclear Propulsion Program.
Food Access Control Point (FACP)	EMD	An access control point established along the food control boundary to ensure maintenance of food control measures. FACP is synonymous with Food Control Point.
Food Control Area (FCA)	Health	A geographical area in which food control measures may be implemented. Measures are enacted due to potential or actual contamination of food products above the Washington State intervention levels. The Food Control Area includes the relocation area.
Food control Boundary (FCB)	Franklin County Agriculture	Food Control Area = Food Control Isopleth + buffer A geopolitical designation which defines and surrounds the food control area, where food control measures may be implemented. (Synonymous with Food Control Area Boundary).
		Boundary).

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Term	Reference/ Source	Definition
Food Control Isopleth	Health	The calculated and / or projected isopleth used to determine the Food Control Area.
Food Control Measures	Health Benton County EMD	Protective Actions established to limit the exposure of the public to adulterated food. Measures may include delaying or restricting harvest and / or transport, instituting an embargo, or processing contaminated foods.
Food Control Point (FCP)	Walla Walla County Franklin County Agriculture Health	A control point established along the Food Control Boundary to ensure that food control measures are maintained. A food control point controls agricultural food products that have been potentially exposed to radiation from being taken out of the area or into the area. Synonymous with Food Access Control Point.
Fuel Fabrication Plant	Health	A plant that produces uranium oxide fuel elements for use in nuclear power reactors.
Full participation Exercise	REP Program Manual, Appendix B	Per 44 CFR 350.2(j), a joint exercise in which: (1) state, local, and tribal organizations, licensee emergency personnel, and other resources are engaged in sufficient numbers to verify the capability to respond to the actions required by the accident / incident scenario; (2) the integrated capability to adequately assess and respond to an accident at a commercial nuclear power plant is tested; and (3) the implementation of the observable portions of state, local, and tribal plans / procedures is tested.
Full-Scale Exercise (FSE)	REP Program Manual, Appendix B	In accordance with HSEEP, a full-scale exercise is a multi- agency, multi-jurisdictional, multidiscipline exercise involving functional (e.g., joint field office, emergency operations centers, etc.) and "boots on the ground" response (e.g., firefighters decontaminating mock victims). For the purposes of the REP Program, a full-scale exercise meets the intent of the full-participation exercise.
Functional Exercise (FE)	REP Program Manual, Appendix B	An exercise that sufficiently engages organizations to test their abilities to respond to the scenario, but participation is less than full-scale. Most REP biennial joint exercises are functional exercises because they simulate some response capabilities or demonstrate them out of sequence from the scenario, and the exercise may not require participation of all offsite entities that would respond in a real radiological emergency.
Gamma Radiation	EMD	High-energy electromagnetic radiation emitted by nuclei during nuclear reactions or radioactive decay. These rays have high energy and a short wave length. Shielding against gamma radiation requires thick layers of dense materials, such as lead. Gamma rays or radiation are potentially lethal to humans, depending of the intensity of the flux.

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Term	Reference/ Source	Definition
Geiger-Mueller detector	REP Program Manual, Appendix B	A type of radiation detector that can be used to measure the gamma, or beta plus gamma radiation depending on whether the detector is covered by a beta shield. (CD V-700 and Ludlum Model 12 detectors are of this type.)
General Emergency (GE)	REP Program Manual, Appendix B	Licensee emergency classification level indicating that events are in process or have occurred that involve actual or imminent substantial core degradation or melting, with potential for loss of containment integrity or security events that result in an actual loss of physical control of the facility. Releases can reasonably be expected to exceed Environmental Protection Agency protective action guide exposure levels offsite for more than the immediate site area.
Geopolitical Boundary	EMD	A continuous line on a map which may utilize geographic (rivers, roads, and railroad tracks) or political (county/state border) designations. The food control and relocation boundaries are geopolitical boundaries.
Governors Authorized Representative (GAR)	CPG-101	An individual empowered by a Governor to: (1) execute all necessary documents for disaster assistance on behalf of the state, including certification of applications for public assistance; (2) represent the Governor of the impacted state in the Unified Coordination Group, when required; (3) coordinate and supervise the state disaster assistance program to include serving as its grant administrator; and (4) identify, in coordination with the State Coordinating Officer, the state's critical information needs for incorporation into a list of Essential Elements of Information.
Half-life	REP Program Manual, Appendix B	The time required for the activity of a given radioactive substance to decrease to half of its initial value due to radioactive decay. The half-life is a characteristic property of each radioactive species and is independent of its amount or condition. The effective half-life of a given isotope on the body is the time in which the quantity in the body will decrease to half as a result of both radioactive decay and biological elimination. Half-lives vary from millionths of a second to billions of years.
Hazardous Materials	EMD	Refers generally to hazardous substance, petroleum, natural gas, synthetic gas, acutely toxic chemicals, radiological, and other toxic chemicals.
Health Physics Technician	REP Program Manual, Appendix B	An individual trained in radiation protection.
High exposure rate	REP Program Manual, Appendix B	An exposure rate greater than 2.5 milliroentgens per hour.

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Term	Reference/ Source	Definition
High Levels of Radiation Exposure	REP Program Manual, Appendix B	Doses of 100 rem or greater.
Homeland Security Exercise Evaluation Program (HSEEP)	REP Program Manual, Appendix B	A capabilities and performance-based exercise program that provides standardized policy, doctrine, and terminology for the design, development, conduct, and evaluation of homeland security exercises. HSEEP also provides tools and resources to facilitate the management of self-sustaining homeland security exercise programs.
Host / Support Jurisdiction	REP Program Manual, Appendix B	A geographical area that is at least 5 miles, and preferably 10 miles, beyond the boundaries of the 10-mile plume pathway emergency planning zone (i.e., 15-20 miles from the commercial nuclear power plant) where functions such as congregate care, radiological monitoring, decontamination, and registration are conducted.
Host Area / Support Jurisdiction	REP Program Manual, Appendix B	A geographical area that is at least 5 miles, and preferably 10 miles, beyond the boundaries of the 10-mile plume pathway emergency planning zone (i.e., 15-20 miles from the commercial nuclear power plant) where functions such as congregate care, radiological monitoring, decontamination, and registration are conducted.
Host Regional Office	REP Program Manual, Appendix B	FEMA Regional Office that has program jurisdiction for a site because of the location of a commercial nuclear power plant within its regional borders.
Implementing Procedure	REP Program Manual, Appendix B	Instructions used by personnel that provide a detailed description, including checklists, of the operations that are to be conducted by either a specific group of individuals or a designated position. Implementing procedures are also referred to as standard operating guidelines.
Inadequate	REP Program Manual, Appendix B	As used in reviews of radiological emergency response plans / procedures, inadequate means the plan / procedure contents do not meet the intent of a particular NUREG-0654 / FEMA-REP-1 Planning Standard and / or Evaluation Criterion.
Incident	REP Program Manual, Appendix B	An occurrence, natural or man-made, that requires a response to protect life or property. Incidents can include major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wild land and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.
Incident Command System (ICS)	EMD CEMP	All-hazards, on-scene functional management system that establishes common standards in organization, terminology, and procedures. ICS provides a means (unified command) for the establishment of a common set

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Term	Reference/ Source	Definition
	Source	of incident objectives and strategies during multi-agency / multi-jurisdiction operations while maintaining individual agency / jurisdiction authority, responsibility and accountability. ICS is a component of the National Interagency Incident Management Systems (NIMS).
Incident period	FEMA	The time interval during which the disaster-causing incident occurs. No Federal assistance under the Stafford Act shall be approved unless the damage or hardship to be alleviated resulted from the disaster-causing incident which took place or was in anticipation of that incident. The incident period will be established by FEMA in the FEMA-State Agreement and published in the Federal Register.
Ingestion Exposure Pathway Emergency Planning Zone (EPZ)	REP Program Manual, Appendix B	A geographic area, approximately 50 miles in radius surrounding a commercial nuclear power plant, in which it has been estimated that the health and safety of the general public could be adversely affected through the ingestion of water or food which has been contaminated through exposure to radiation primarily from the deposition of radioisotopes after a radiological accident. The duration of such exposures could range in length from hours to months.
Ingestion Pathway Exercise	REP Program Manual, Appendix B	An exercise involving ingestion exposure pathway protective action decision-making and implementation. A state fully participates in the ingestion pathway portion of exercises at least once every 8 years. In states with more than one site, the state rotates this participation from site to site.
Ingestion Phase	REP Program Manual, Appendix B	See Intermediate Phase
Initiating Condition (IC)	NRC	One of a predetermined subset of nuclear power plant conditions where either the potential exists for a radiological emergency, or such an emergency has occurred.
Institutionalized individuals	REP Program Manual, Appendix B	Individuals who reside in institutions, such as nursing homes or correctional facilities, who may need to depend on others for assistance with protective actions. Institutionalized individuals may or may not have disabilities and access/functional needs.
Intermediate Phase	REP Program Manual, Appendix B	The period beginning after the utility has verified that the release has been terminated. Reliable environmental measurements are available for use as a basis for decisions on additional protective actions. It extends until these additional protective actions are terminated. This phase may overlap the late phase and may last from weeks to many months. The intermediate phase encompasses REP post plume activities associated with both ingestion and relocation.

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Term	Reference/ Source	Definition
Ionizing Radiation	REP Program Manual, Appendix B	Any radiation that displaces electrons from atoms or molecules, thereby producing icons. Alpha, beta and gamma radiation are examples. Ionizing radiation may damage skin and tissue.
Isodose line	Agriculture	A geographic designation which defines locations where the radiation doses (or dose rates) are constant. There are typically many isodose lines on a map when characterizing radioactive contamination. This is similar in form to a topographic map designation, which shows increments of elevation.
Isotope	REP Program Manual, Appendix B	Nuclides having the same number of protons in their nuclei and the same atomic number, but differing in the number of neutrons and atomic mass number. Some isotopes of a particular element may be radioactive while the others are not.
Joint Field Office (JFO)	CPG 101	The primary Federal incident management field structure. The Joint Field Office is a temporary Federal facility that provides a central location for the coordination of Federal, state, territorial, tribal, and local governments and private sector and nongovernmental organizations with primary responsibility for response and recovery. The Joint Field Office structure is organized, staffed, and managed in a manner consistent with National Incident Management System principles and is led by the Unified Coordination Group. Although the Joint Field Office uses an Incident Command System structure, the Joint Field Office does not manage on-scene operations. Instead, the Joint Field Office focuses on providing support to on-scene efforts and conducting broader support operations that may extend beyond the incident site.
Joint Information Center (JIC)	REP Program Manual, Appendix B	A central point of contact for all news media at the scene of the incident. News media representatives are kept informed of activities and events via public information officials from all participating Federal, state, and local agencies, which, ideally, are co-located at the JIC.
Joint Information System (JIS)	REP Program Manual, Appendix B	a structure that integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, accurate, accessible, timely, and complete information during a crisis or incident operations. The mission of the joint information system is to provide a structure and system for developing and delivering coordinated interagency messages; developing, recommending, and executing public information plans/procedures and strategies on behalf of the Incident Commander; advising the incident command concerning public affairs issues that could affect a response effort; and controlling rumors and inaccurate information that could
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Term	Reference/ Source	Definition
		undermine public confidence in the emergency response effort.
Key Staff	REP Program Manual, Appendix B	Those emergency personnel, sufficient in numbers and functions, necessary to carry out emergency operations as required by scenario events and as set forth in the plans / procedures.
KI (Potassium Iodide)	REP Program Manual, Appendix B	See Potassium Iodine.
Late Phase	REP Program Manual, Appendix B	The period beginning when recovery action designed to reduce radiation levels in the environment to acceptable levels for unrestricted use are commenced, and ending when all recovery actions have been completed. This period may extend from months to years. REP post-plume activities associated with return and recovery occur during the late phase.
Level 1 Finding	REP Program Manual, Appendix B	An observed or identified inadequacy of organizational performance in an exercise that could cause a determination that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a Nuclear Power Plant.
Level 2 Finding	REP Program Manual, Appendix B	An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact health safety.
Licensee Offsite Response Organization (Licensee ORO)	REP Course Manual Benton County Franklin County	The Licensee's offsite emergency response organization comprised of Licensee, State and Local government, volunteer and other support personnel required to implement the Licensees ORO plan. Such an organizational entity is typically employed for situations where State and Local governments do NOT participate in the Radiological Emergency Preparedness Planning program.
Logistics Section	REP Program Manual, Appendix B	As applied to an exercise planning team organized according to Incident Command System principles, the team members providing the supplies, materials, facilities, and services that enable the exercise to function smoothly without outside interference or disruption. This group consists of two subsections: service and support. The service section provides transportation, barricading, signage, food and drinks, real-life medical capability, and exercise-site perimeter security. The support section provides communications, purchasing, general supplies, very important personnel (VIP) / observer processing, and recruitment / management of actors.

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Term	Reference/ Source	Definition
Low exposure rate	Health	Exposure rates less than 100 milliroentgens per hour.
Maximally Exposed Individual	REP Program Manual, Appendix B	A hypothetical individual who receives the greatest possible projected dose in the area of highest radiation levels over a specified period of time.
Measured Dose Line	Health	An isodose rate line which is compiled by field results and indicate a dose rate, which is readily measured. An example of a measured dose line is the 500mr/hr line, which is used to define the restricted area within the relocation boundary.
Measuring	REP Program Manual, Appendix B	Refers to counting to detect radiation levels or determining other parameters, such as the energy of radiation or physical characteristics of samples, such as the volume of an air sample.
Media Center	REP Program Manual, Appendix B	A facility staffed by public information officers from multiple emergency response organizations for the purpose of providing a single designated point of contact with the news media and to facilitate exchange and coordination of information among public information officers from different organizations. This type of facility is also referred to as a Public Information Center, a Joint Information Center, a Public Affairs Center, or an Emergency News Center.
Meteorological Unified Dose Assessment Center (MUDAC)	REP Program Manual, Appendix B	An area within or near the facility which houses the personnel responsible for the coordination of radiological monitoring teams, collection of radiological monitoring data, calculation of dose projections and the recommendation of protective actions for the emergency planning zones. The MUDAC for Energy Northwest is located at the EOF. Also see dose assessment center (DAC) and Unified Dose Assessment Center (UDAC).
Microcurie	REP Program Manual, Appendix B	One millionth of a Curie (Ci).
Mobilized Organization	REP Program Manual, Appendix B	An organization that has completed the activation process and is able to carry out the essential emergency functions, as required by scenario events and as set forth in emergency response plans / procedures.
Monitoring	REP Program Manual, Appendix B	The act of detecting the presence of radiation and the measurement of radiation levels, usually with a portable survey instrument.
Monitoring and decontamination facility	REP Program Manual, Appendix B	A temporary facility established outside the plume emergency planning zone for the purpose of monitoring and decontaminating emergency workers and their vehicles and equipment used in the plume and / or areas contaminated by the plume.

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Program al, Program al,	A Department of Energy asset capable of providing a computer-generated model of the most probable path of the radioactive contamination released at a radiological accident site. An area established on non-federal lands located within the United States, its possessions, or territories for the purpose of safeguarding classified defense information or protecting Department of Defense equipment and/or material. A national defense area may be established around the site of an accident involving military weapons or equipment by the Department of Defense to protect national security. A set of principles that provides a systematic, proactive
orogram	computer-generated model of the most probable path of the radioactive contamination released at a radiological accident site. An area established on non-federal lands located within the United States, its possessions, or territories for the purpose of safeguarding classified defense information or protecting Department of Defense equipment and/or material. A national defense area may be established around the site of an accident involving military weapons or equipment by the Department of Defense to protect national security.
Program	radioactive contamination released at a radiological accident site. An area established on non-federal lands located within the United States, its possessions, or territories for the purpose of safeguarding classified defense information or protecting Department of Defense equipment and/or material. A national defense area may be established around the site of an accident involving military weapons or equipment by the Department of Defense to protect national security.
Program	accident site. An area established on non-federal lands located within the United States, its possessions, or territories for the purpose of safeguarding classified defense information or protecting Department of Defense equipment and/or material. A national defense area may be established around the site of an accident involving military weapons or equipment by the Department of Defense to protect national security.
Program al,	An area established on non-federal lands located within the United States, its possessions, or territories for the purpose of safeguarding classified defense information or protecting Department of Defense equipment and/or material. A national defense area may be established around the site of an accident involving military weapons or equipment by the Department of Defense to protect national security.
Program al,	United States, its possessions, or territories for the purpose of safeguarding classified defense information or protecting Department of Defense equipment and/or material. A national defense area may be established around the site of an accident involving military weapons or equipment by the Department of Defense to protect national security.
al,	of safeguarding classified defense information or protecting Department of Defense equipment and/or material. A national defense area may be established around the site of an accident involving military weapons or equipment by the Department of Defense to protect national security.
al,	Department of Defense equipment and/or material. A national defense area may be established around the site of an accident involving military weapons or equipment by the Department of Defense to protect national security.
al,	national defense area may be established around the site of an accident involving military weapons or equipment by the Department of Defense to protect national security.
al,	an accident involving military weapons or equipment by the Department of Defense to protect national security.
al,	the Department of Defense to protect national security.
al,	
al,	A set of principles that provides a systematic, proactive
1' D	approach to guide departments and agencies at all levels of
ndix B	government, nongovernmental organizations, and the
	private sector to work seamlessly to prevent, protect
	against, respond to, recover from, and mitigate the effects
	of incidents, regardless of cause, size, location, or
	complexity, in order to reduce the loss of life and property
	and harm to the environment.
	The plan, which establishes the basis for the provision of
	federal assistance to a state and the local jurisdiction,
	impacted by a catastrophic or significant emergency or
	disaster which results in a requirement for federal response
	assistance.
	A 7450-Acre nuclear Submarine Base on the eastside of
•	Hood Canal near Bangor, Washington. Trident submarines
	and one fast attack submarine are home ported at Naval
	Base Kitsap Bangor. Emergency preparedness and
	response for all nuclear submarines at Bangor are the
	responsibility of the Submarine Group Nine.
	A joint program of the US Department of Energy / National
•	Nuclear Security Administration and US Navy. All naval
	nuclear propulsion work and operations at nuclear capable
	public and private shipyards, naval nuclear ships / tenders,
	submarine bases and nuclear homeport naval stations are
	under the radiological regulatory authority of the Naval
	Nuclear Propulsion Program.
	A 120-acre naval station in Everett, Washington on Port
•	Gardner Harbor. One nuclear vessel, an aircraft carrier, is
	homeport at Naval Station Everett. PSNS is responsible for
	emergency preparedness and response.
Program	The chemically inert radioactive gasses that are released
al,	during an accident at a nuclear power plant.
ndix B	
Program	Offsite response organizations that are not participating in
al,	emergency planning and preparedness for incidents at a
ndix B	commercial nuclear power plant.
	Program al, ndix B Program al,

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Term	Reference/ Source	Definition
Notification and Mobilization of Personnel	REP Program Manual, Appendix B	The transmission of messages to emergency personnel informing them of an incident and directing them to report for emergency duty at their assigned duty stations.
Notifying the Public	REP Program Manual, Appendix B	Distributing an instructional message to the public, either through the Emergency Alert System (EAS) or some other system.
Nuclear Regulatory Commission (NRC)	FEMA	The federal agency that regulates and licenses commercial nuclear facilities.
Nuclear/Radiological Incident Annex	FEMA	The plan which describes the Federal response to the radiological and onsite technical aspects of an emergency in the United States and identifies the lead federal agency for an event. The events include one involving the Nuclear Regulatory Commission or state licensee, the Department of Energy or Department of Defense property, a space launch, occurrence outside the United States, but not affecting the United States, and one involving radium or accelerated-produced material. Transportation events are included in those involving the Nuclear Regulatory Commission, state licensee, Department of Energy, or Department of Defense.
NUREG 0654 / FEMA-REP-1	EMD	Criteria for preparation and evaluation of radiological emergency response plans and preparedness in support of nuclear power plants.
Off-hours	Benton County Franklin County REP course manual	The hours between 6:00 p.m. and 4:00 a.m. or any weekend hours.
Offsite response organization (ORO)	REP Program Manual, Appendix B	Any state, local, and tribal government; supporting private industry and voluntary organizations; and Licensee offsite response organizations (that are formed when state, local, and tribal governments fail to participate in the REP Program) that are responsible for carrying out emergency functions during a radiological emergency.
On-Scene Coordinator (OSC)	EMD Agriculture	The federal official predesignated by the Environmental Protection Agency or the Coast Guard to coordinate and direct federal responses and removals under the National Contingency Plan, or the Department of Defense official designated to coordinate and direct the removal actions from releases of hazardous substances, pollutants or contaminants from the Department of Defense vessels and facilities. For Department of the Army facilities, the Initial Response Force and the Service Response Force Commander is the On-Scene Coordinator.
Onsite Personnel	REP Program Manual, Appendix B	Licensee or contract personnel working at commercial nuclear power plants.

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Term	Reference/ Source	Definition
Operationally mobilized organization	REP Program Manual, Appendix B	An organization that has completed the activation process required by events and their emergency response plans / procedures. Operational mobilization is achieved when all key personnel are at their duty stations.
Operations Section	REP Program Manual, Appendix B	As applied to an exercise planning team organized according to Incident Command System principles, the team member providing most of the technical or functional expertise for the participating entities. This group develops scenarios, selects evaluation tools, and has personnel with the expertise necessary to serve as evaluators.
PAG ratio	Agriculture	The ratio of the measured sample isotopic concentration to the corresponding derived intervention level. A PAG value of 1.0 or greater indicates that protective actions should be taken to prevent or reduce radiation exposure to the public.
Partial participation exercise	REP Program Manual, Appendix B	As set forth in 44 CFR 350.2(k), the engagement of state, local, and tribal personnel in an exercise sufficient to adequately test direction and control functions for protective action decision-making related to the emergency action levels and communication capabilities among affected offsite response organizations and the licensee.
Permanent work	EMD	Restorative work that must be performed through repairs or replacement, to restore an eligible facility on the basis of its pre-disaster design and current applicable standards.
Personnel Monitoring	Health	The determination of the degree of radioactive contamination on individuals using survey meters, or the determination of radiation dosage received by means of dosimetry devices.
Persons with disabilities and access/functional needs	REP Program Manual, Appendix B	Individual(s) within a community that may have additional needs before, during, and after an incident in one or more of the following functional areas: maintaining independence, communication, transportation, supervision, and medical care. Individual(s) in need of additional response assistance may include those who have disabilities (sensory, motor skills, mental / emotional); who live in institutionalized settings; who are elderly; who are children; who are from diverse cultures; who have limited or no English-speaking proficiency; or who are transportation disadvantaged.
Phase	EMD	A time frame reference for an RDD incident. There are three phases over the course of an accident; early, intermediate, and late. See Early Phase, Intermediate Phase, Late Phase.
Plan	EMD	An organization's documented concept of operations and implementing procedures for managing its internal response and coordinating its external response with other organizations to radiological emergencies.

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Term	Reference/	Definition
Plan Issue	REP Program Manual, Appendix B	An observed or identified inadequacy in the OROs' emergency plan/implementing procedures, rather than that of the ORO's performance.
Planning Area	REP Program Manual, Appendix B	A pre-designated geographic subdivision of the plume exposure pathway EPZ. In some plans / procedures, it may be referred to as an Emergency Response Planning Area or an equivalent term.
Planning Section	REP Program Manual, Appendix B	As applied to an exercise planning team organized according to Incident Command System principles, the team members responsible for compiling and developing all exercise documentation. To accomplish this effectively, the Planning Section also collects and reviews policies, plans, and procedures that will be validated during the exercise. During the exercise, the Planning Section may be responsible for developing simulated actions by agencies not participating in the exercise and setting up a Simulation Cell for exercises that necessitate one (such as Functional Exercises).
Plume	REP Program Manual, Appendix B	Generally a gaseous atmospheric release from a nuclear power plant, in an accident or emergency, which may contain radioactive noble gases and volatile solids. While emergency plans / procedures must recognize the very low probability that particulates could be released in a serious accident, primary emphasis is given to the development of protective actions against the release of noble gases and volatiles such as radioiodines. This cloud is not visible to the eye, but can be measured, or "seen" with radiation measurement equipment.
Plume Dose Projections	REP Program Manual, Appendix B	Estimates of dosage to the public from exposure to the plume, over a period of time, in the absence of any protective actions.
Plume Exposure Pathway	REP Program Manual, Appendix B	Pathway: (1) For planning purposes, the area within approximately a 10-mile radius of a commercial nuclear power plant site. (2) A term describing the means by which whole body radiation exposures occur as a result of immersion in a plume release. The area in which plume exposures are likely is described in NUREG-0396 as an area extending out approximately 10 miles from the reactor site and keyhole oriented downwind. In the plume emergency planning zone, actions may be required to protect the public from the effects of whole-body external exposure to gamma radiation from the plume and from deposited materials and inhalation exposure from the passing radioactive plume's released materials. The duration of exposure in this mode could range from hours to days in the case of particulate deposition.

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Term	Reference/ Source	Definition
Plume Exposure Pathway Planning Zone	REP Program Manual, Appendix B	A geographic area approximately 10 miles in radius surrounding a commercial nuclear power plant within which the health and safety of the general public could be adversely affected by direct whole body external exposure to gamma radiation from deposited materials as well as inhalation exposure from the passing radioactive plume during a radiological accident. The duration of such exposures could range in length from hours to days.
Plume Phase	REP Program Manual, Appendix B	See Early Phase
Portal monitor Potassium Iodide	REP Program Manual, Appendix B REP Program	A radiation monitor consisting of several radiation detectors arranged in a fixed position within a frame that forms a passageway for individuals being monitored. A prophylactic compound commonly referred to as a
(KI)	Manual, Appendix B	radioprotective drug containing a stable (i.e., non-radioactive) form of iodide that can be used effectively to block the uptake of radioactive iodine by the thyroid gland in a human being.
Potential Dose	REP Program Manual, Appendix B	The radiation dose that could result from a particular set of plant conditions, not based on estimated or measured releases or environmental levels.
Precautionary Protective Actions	REP Program Manual, Appendix B	Any preventive or emergency protective actions implemented without the verification of radionuclide measurements by field monitoring or laboratory analysis.
Pre-Operational Exercise	REP Program Manual, Appendix B	An exercise conducted prior to the issuance of a full-power license to a commercial nuclear power plant licensed by the Nuclear Regulatory Commission (NRC).
Pressurized Water Reactor (PWR)	REP Program Manual, Appendix B	A power reactor in which heat is transferred from the core to the heat exchanger by water kept under high pressure. The primary system is pressurized to allow the water to reach high temperatures without boiling. Steam is generated in a secondary circuit.
Preventive Protective Actions	REP Program Manual, Appendix B	Protective actions to prevent or reduce contamination of milk, food, and drinking water such as covering water sources and providing dairy cows with stored feed. Preventive protective actions also include washing, brushing, scrubbing, or peeling fruits and vegetables to remove surface contamination.
Principal Federal Officer (PFO)	REP Program Manual, Appendix B	Pursuant to the Homeland Security Act of 2002 and HSPD-5, the Secretary of Homeland Security is the principal Federal official for all domestic incidents requiring multiagency Federal response. The Secretary may elect to designate a single individual to serve as his or her primary representative to ensure consistency of Federal support as well as the overall effectiveness of the Federal incident

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		management. When appointed, such an individual serves in the field as the Principal Federal Official for the incident.
Principal Off-Site Response Organization		The plans/procedures document all Federal, State, local, Tribal, and private-sector organizations that comprise the overall response organization and the responsibilities each assumes. The plans/procedures identify principal OROs (e.g., emergency management, fire/HAZMAT, law enforcement) and nuclear facilities (the licensees) having lead roles in emergency planning, preparedness, and response.
Private nonprofit organization	EMD	Any non-governmental agency or entity that currently has (1) An effective ruling letter from the US Internal Revenue Service granting tax exemption under section 501(c), (d), or (e) of the Internal Revenue Code of 1954; or (2) Satisfactory evidence from the State that the organization or entity is a nonprofit one organized or doing business under State law.
Projected dose	REP Program Manual, Appendix B	The estimated or calculated amount of radiation dose to an individual from exposure to the plume and / or deposited materials, over a period of time, in the absence of protective action.
Projected dose / equivalent	Agriculture EMD Health	An estimate of the radiation dose equivalent which affected population groups could potentially receive if protective actions are not taken.
Protective Action	EMD Agriculture Health	An action or policy that is designed to protect human health and safety. Protective actions are often described based on a certain Protective Action Guide and circumstances.
Protective Action Decision (PAD)	REP Program Manual, Appendix B	Measures taken in anticipation of, or in response to, a release of radioactive material to the environment. The purpose of PADs is to provide dose savings by avoiding or minimizing the radiation exposure received by individuals, thereby minimizing the health risks resulting from radiation exposure. Sheltering and evacuation are the two PADs relied upon for limiting the direct exposure of the general public within the plume exposure emergency planning zone. Preventive and emergency PADs are two categories of PADs relied upon for limiting exposure from contaminated food and water in the ingestion exposure emergency planning zone.
Protective Action Guide (PAG)	REP Program Manual, Appendix B	Projected dose to an individual in the general population that warrants the implementation of protective action. The Food and Drug Administration and Environmental Protection Agency have recommended specific protective action guides in terms of the level of projected dose that warrants the implementation of evacuation and sheltering,

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Term	Reference/ Source	Definition
		relocation, and limiting the use of contaminated food, water, or animal feed.
Protective Action Guide Ratio	Health	The ratio of the measured sample isotopic concentration to the corresponding derived intervention level. A PAG value of 1.0 or
Protective Action Recommendations (PAR)	REP Program Manual, Appendix B	Advice to the state/locals on emergency measures it should consider in determining action for the public to take to avoid or reduce their exposure to radiation.
Public Alert and Notification System	EMD	The system for obtaining the attention of the public and providing appropriate emergency information. Sirens are the most commonly used outdoor public alert devices but frequently are supplemented by tone alert radios, visual warning devices for the hearing impaired, and telephone based warning systems.
Public Information Officer	EMD	Public Information Officers are the communications coordinators or spokespersons of certain governmental organizations (i.e. city, county, school district, state government and police / fire departments). The primary responsibility of a PIO is to provide information to the media and public as required by law and according to the standards of their profession
Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS&IMF) Naval Base Bremerton	EMD NNPP	A 353-acre shipyard performing repair, overhaul, testing and decommissioning of nuclear vessels in Sinclair Inlet adjacent to Bremerton, Washington. A nuclear aircraft carrier is home ported at Naval Base Kitsap-Bremerton that is collocated with the shipyard. Emergency preparedness and response of all nuclear ships at the shipyard and Naval Base Kitsap-Bremerton are the responsibility of the Shipyard Commander.
Radiation Absorbed Dose (RAD)	Health REP Program Manual, Appendix B	Acronym for radiation absorbed dose. This is the basic scientific unit of absorbed dose of radiation. A dose of 1 rad means the absorption of 100 ergs (a small amount of energy) per gram of absorbing material.
Radiation Safety Officer (RSO)	REP Program Manual, Appendix B	A Health Physicist or other individual experienced in radiation protection who advises medical facility staff regarding the hazards associated with high levels of radiation.
Radiological Assistance Program (RAP)	REP Program Manual, Appendix B	A team dispatched to the site of a radiological incident by the Department of Energy Regional Office responding to the incident.
Radiological Dispersal Device (RDD)	EMD	Any device that causes the purposeful dissemination of radioactive material, across an area with the intent to cause harm, without a nuclear detonation occurring.
Radiological Emergency	REP Program Manual, Appendix B	The FEMA program that administers emergency preparedness for all commercial nuclear sites.

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Term	Reference/ Source	Definition
Preparedness Program (REP)	Source	
Radiological Exposure Devices (REDs)	CDC	Radioactive material or an object containing radioactive material that can expose people to radiation without their knowledge. REDs may be hidden in public places (e.g., under a subway seat, or in a food court hallway). People who sit near or pass close to the RED may be exposed to radiation. The dangers of a RED depend on three factors: 1) the type and amount of radioactive material used; 2) how long a person spends near the device; and 3) what parts of a person's body are exposed to radiation coming from the device. People exposed to high levels of radiation can develop symptoms of Acute Radiation Syndrome (ARS). They can also develop radiation burns. Health effects may take hours, days, or weeks to appear. These effects can range from mild to severe (e.g., cancer or death). Some people may not experience any health effects.
Radionuclide	REP Program Manual, Appendix B	A radioactive isotope of a particular element.
Radiological Emergency Area	REP Program Manual, Appendix B	An area established either on an ad hoc basis or pre- identified in a medical facility for monitoring, decontamination, and treatment of contaminated injured individuals, and for contamination control.
Reasonable Assurance	REP Program Manual, Appendix B	A determination that state, local, tribal, and utility offsite plans and preparedness are adequate to protect public health and safety in the emergency planning areas of commercial nuclear power plants.
Reception / Relocation Center	REP Program Manual, Appendix B	A pre-designated facility located outside the plume exposure pathway emergency planning zone (at a minimum 15 miles from the nuclear power plant) at which the evacuated public can register; receive radiation monitoring and decontamination; receive assistance in contacting others; receive directions to congregate care centers; reunite with others; and receive general information. It generally refers to a facility where monitoring, decontamination, and registration of evacuees are conducted. A reception / relocation center is also referred to as a registration center or public registration and decontamination center.
Recovery	REP Program Manual, Appendix B	The process of reducing radiation exposure rates and concentrations of radioactive material in the environment to acceptable levels for return by the general public for unconditional occupancy or use after the emergency phase of a radiological emergency.
Recovery and Restoration	EMD Health	The late phase protective activities taken to address the long-term concerns in the affected area(s) and among its residents. These concerns include economic, social,
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		psychological, physiological, and environmental impacts, as well as control of contaminated food, and a continuing public information effort.
Recovery Worker	REP Program Manual, Appendix B	An individual who is permitted to enter the restricted zone under controlled conditions to perform work or to retrieve valuable property.
Reentry	REP Program Manual, Appendix B	Workers or members of the public going into a restricted zone on a temporary basis under controlled conditions.
Re-entry	Health	Temporary movement into a restricted or relocation area under controlled conditions.
Regional Director (RD)	FEMA	A Director of a regional office of FEMA, or his/her designated representative. As used in these regulations, Regional Director also means Disaster Recovery Manager who has been appointed to exercise the authority of the Regional Director for a particular emergency or major disaster.
Regional Response Force (RRF)	REP Program Manual, Appendix B	A force identified in the Nuclear Accident Response Capabilities Listing (at the Joint Nuclear Accident Coordinating Center) belonging to Department of Defense or Department of Energy installations, facilities, or activities within the US and its territories. The Regional Response Force may be tasked with taking emergency response actions necessary to maintain command and control onsite pending arrival of the Service or Agency Response Force. Functions with which the Regional Response Force may be tasked, within its capabilities, are: (1) rescue operations; (2) accident site security; (3) firefighting; (4) initial weapon emergency staffing; (5) radiation monitoring; (6) establishing command, control and communications; and (7) public affairs activities.
Relocation	REP Program Manual, Appendix B	The removal or continued exclusion of people (households) from contaminated areas to avoid chronic radiation exposure.
Relocation area	Agriculture	The geographic area in which relocation has been determined to be necessary. This area is defined by geopolitical designations that surround an area of potential exposure with long-term health and safety impacts to the general public.
Relocation Area	Benton County	The geographic area described by geopolitical boundary designations in which relocation has been determined to be necessary.
Relocation Area	Health	A geographical area where ground deposition levels would expose populations greater than 2 rem TEDE during the first year following the accident or greater than 0.5 rem TEDE during the second year. Access to the Relocation

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		Area is controlled. Residents or employees not previously evacuated from these areas are relocated if their calculated dose will exceed these guidelines. • Relocation Area = Relocation Isopleth + buffer
Relocation Boundary	Walla Walla County	The border of the Relocation Area, which is defined by geopolitical designations that surround an area of potential exposure to the public.
Relocation Control Points	Health	Road intersections or other logistically viable points on the Relocation Boundary which enable law enforcement and other emergency workers to maintain access control of the Relocation Area.
Relocation Isopleth	Health	The isodose line used to determine the relocation area.
Roentgen Equivalent in Man (REM)	Agriculture	The unit of exposure expressed as dose equivalent. (The dose in rem is equal to the absorbed dose times a quality factor. The quality factor takes into consideration the linear energy transfer of each type of radiation due to it's size, charge, spin, influence, and so forth.)
Roentgen Equivalent in Man (REM)	Health Benton County	Acronym of Roentgen Equivalent in Man. The unit for dose equivalent of ionizing radiation that equates the biological damage to human tissue (biological effect) caused by any type of ionizing radiation (i.e., alpha, beta, gamma, etc.) A rem of alpha radiation is equal to a rem of gamma or beta radiation. (A rem = a rad x a quality factor).
Rem (also see roentgen equivalent in man/mammal	REP Program Manual, Appendix B	The unit of dose of any ionizing radiation that produces the same biological effect as a unit of absorbed dose of ordinary x-rays. A unit of dose for measuring the amount of ionizing radiation energy absorbed in biological tissue.
Responsible offsite response organization (responsible ORO)	REP Program Manual, Appendix B	An organization designated in emergency response plans / procedures as that organization's responsible for a specific emergency function.
Responsible school official	REP Program Manual, Appendix B	The school official participating in an exercise or drill, who is responsible for implementing school emergency procedures according to the plan.
Restricted Area or Zone	Walla Walla County Health	Any area to which access is controlled for the protection of individuals from exposures to radiation and hazardous materials. The state of Washington recommends protection actions (i.e. relocation) in areas where members of the public could receive two REM over the first year by residing in the area. In contrast, state WAC 246-221-010 sets the occupational workers exposure limits in restricted areas at 5 REM/year, or 1.25 REM per calendar year.
Restricted zone	REP Program Manual, Appendix B	An area of controlled access from which the population has been evacuated, relocated or sheltered-in-place.

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Return	EMD	The intermediate phase action to allow evacuees to return to their homes as quickly as possible in areas that were clearly not affected. Several return protective action decisions may be made, and are described as Initial Return, Second Return, and others.
Return	REP Program Manual, Appendix B	Reoccupation of areas cleared for unrestricted residence or use by previously evacuated or relocated populations.
Revised Code of Washington (RCW)	RCW	The Revised Code of Washington (RCW) is the compilation of all permanent laws now in force. It is a collection of Session Laws (enacted by the Legislature, and signed by the Governor, or enacted via the initiative process), arranged by topic, with amendments added and repealed laws removed. It does not include temporary laws such as appropriations acts.
Roentgen (R)	Health Benton County	A unit of exposure to ionizing radiation. It is that amount of gamma- or x-rays required to produce ions carrying 1 electrostatic unit of electrical charge in 1 cubic centimeter of dry air under standard conditions.
Roentgen (r)	REP Program Manual, Appendix B	A unit of exposure of gamma (or X-ray) radiation in field dosimetry. One roentgen is essentially equal to one rad (see "rad"). A unit for measuring the amount of radiation energy imparted to a volume of air. The roentgen can be used only to measure X-rays or gamma rays.
roentgen equivalent in man/mammal (rem)	REP Program Manual, Appendix B	One rem is the quantity of ionizing radiation of any type which, when absorbed by man or other mammals, produces a physiological effect equivalent to that produced by the absorption of 1 roentgen of X-ray or gamma radiation.
Rumors	REP Program Manual, Appendix B	Information circulated by individuals and organizations during an emergency that may or may not be true. (Usually, rumors originate and are spread on an ad hoc, not official basis.)
Sampling	REP Program Manual, Appendix B	Collecting specimens of materials (e.g., particles or radioiodine in the air, animal feed, vegetation, water, soil, or milk) at field locations.
Schools	REP Program Manual, Appendix B	In the context of the REP Program, the term "schools" refers to public and private schools, and licensed or government supported pre-schools and daycare centers.
	Benton County	Primarily intended to refer to public schools. However, because of the interest of private schools, kindergartens, and day care centers in participating in Radiological Emergency Preparedness exercises, this term may be expanded to include these groups
Section 409 Hazard Mitigation Plan	EMD	The hazard mitigation plan required under section 409 of the Stafford Act as a condition of receiving Federal

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		Disaster Assistance. This plan is the basis for the identification of measures to be funded under the Hazard Mitigation grant Program.
Senior Federal Official (SFO)	Agriculture	An individual representing a Federal department or agency with primary statutory authority responsibility for incident management.
Senior FEMA Official (SFO)	REP Program Manual, Appendix B	Official appointed by the director of FEMA, or his representative, to direct the FEMA response at the scene of a radiological emergency.
Service Animal	REP Program Manual, Appendix B	Dogs that are individually trained to do work or perform tasks for people with disabilities. Examples of such work or tasks include guiding people who are blind, alerting people who are deaf, pulling a wheelchair, alerting and protecting a person who is having a seizure, reminding a person with mental illness to take prescribed medications, calming a person with Post Traumatic Stress Disorder (PTSD) during an anxiety attack, or performing other duties. Service animals are working animals, not pets. The work or task a dog has been trained to provide must be directly related to the person's disability. Dogs whose sole function is to provide comfort or emotional support do not qualify as service animals under the ADA.
Shall	REP Program Manual, Appendix B	Mandatory items originating in regulatory material.
Shelter	Benton County Franklin County	Staffed by the American Red Cross (ARC). Established to provide evacuees with food, lodging, first aid and other services. Can be co-located with an EWAC. Evacuees must stop at the Assistance Center to be referred to a shelter.
Sheltering	Agriculture	A protective action that involves taking cover in a building that can be made relatively airtight. Generally, any building suitable for winter habitation will provide some protection when the windows and doors are closed and the heating, ventilation, and air conditioning systems are turned off. Effectiveness can be increased by methods such as using an interior room or basement, taping doors and windows, and employing other systems to limit natural ventilation.
Sheltering	Health	The use of a structure for radiation protection from an airborne plume and/or deposited radioactive material.
Shelter-In-Place	REP Program Manual, Appendix B	A protective action that includes going indoors, listening to an Emergency Alert System radio or television station, closing all windows and doors, closing exterior vents, and turning off heating and air conditioning equipment using outside air.

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Term	Reference/ Source	Definition
Should	REP Program Manual, Appendix B Health	Guidance outlining a Federally-approved means of meeting the intent of the REP regulations. The term may denotes an option, neither requirement nor recommendation. The metric unit of dose equivalent (biological effect) of
Sievert	Health	radiation to humans. 1 Sievert = 100 rem.
Simulation Cell (SimCell)	Benton County	Exercise personnel who simulate interfaces with any nonparticipating groups and who deliver exercise injects to participants.
Site Area Emergency (SAE)	REP Program Manual, Appendix B	Licensee emergency classification level indicating that events are in process or have occurred that involve actual or likely major failures in the plant functions needed for protecting the public or security events that result in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) prevents effective access to equipment needed for the protection of the public. Releases are not expected to exceed Environmental Protection Agency protective action guide exposure levels beyond the site boundary.
Site Specific Procedures	EMD	The procedures used by an organization or individual to respond to a specific occurrence.
Special Population	EMD Benton County Franklin County	In the event of public evacuation, certain groups within the plume exposure pathway emergency planning zone may require special transportation or protective provisions due to special needs or sensitive industrial operations. Examples of such groups are the staff and inhabitants of: Schools and day care centers Nursing homes Hospitals Retirement centers Public utilities Large dairies Correctional institutions Facilities for developmentally disabled Impaired mobility, sight, or hearing Special industrial plants
Stafford Act	Benton County	The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended.
State Coordinating Officer (SCO)	REP Program Manual, Appendix B	An official designated by the governor of an affected state to work with the Cognizant Federal Agency Official and Senior FEMA Official in coordinating the response efforts of Federal, state, local, tribal, volunteer, and private agencies.
State Coordinating Officer(SCO)	Benton County	The person appointed by the Governor to act in cooperation with the Federal Coordinating Officer to administer disaster recovery efforts. This person shall coordinate State and

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Term	Reference/ Source	Definition
		local disaster assistance efforts with those of the Federal Government.
Table Top Exercise	REP Program Manual, Appendix B	A discussion-based exercise that may test single or multiple scenarios and outcomes. OROs may use tabletop exercises to assess key elements in decision-making and implementation.
Technical Specifications	Benton County Agriculture	The limits, operating conditions, and other requirements imposed by the NRC on the operation of commercial facilities and DOE on the operation of its reactor facilities.
Technical Support Center	Benton County	An onsite facility located near the control room, occupied during an Alert or higher classification of emergency, which provides management and technical support to plant operations personnel.
Thermoluminescent Dosimeter (TLD)	Benton County	A type of dosimetry badge used to measure an individual's level of exposure to ionizing radiation. It is characteristic of thermoluminescent material that radiation produces internal changes that cause the material, when subsequently heated, to give off a measurable amount of light directly proportional to the radiation dose. This type of dosimeter cannot be read directly by the wearer; it must be read by a laboratory.
Thermoluminescent Dosimeter (TLD)	EMD	A device for measuring radiation exposure similar to a film badge or a pocket dosimeter.
Thermoluminescent Dosimeter (TLD)	Health	A personal radiation measuring device that uses crystal substances (e.g., lithium fluoride, calcium fluoride) which absorb radiation and develop an electrical potential proportional to the radiation exposure. TLDs are used in a manner similar to a film badge or a pocket dosimeter. TLDs are considered accurate enough to constitute a legal record of dose.
Thermoluminescent Dosimeter (TLD)	REP Program Manual, Appendix B	A type of dosimetry badge used to measure an individual's level of exposure to ionizing radiation. It is characteristic of thermoluminescent material that radiation produces internal changes that cause the material, when subsequently heated, to give off a measurable amount of light directly proportional to the radiation dose. This type of dosimeter cannot be read directly by the wearer; it must be read by a laboratory.
Thermo-luminescent Dosimeter (TLD)	Franklin County	A non-self-reading device for measuring radiation exposure which is a more accurate than a direct reading dosimeter and constitutes a legal record of an Emergency Worker's actual radiation exposure received during the duration of an accident.
Thyroid blocking agent	FEMA	A thyroid blocking agent is a pill, typically containing potassium-iodide. The thyroid blocking agent contains non-

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		radioactive iodine which, when taken before or immediately after exposure to radioactive iodine, saturates the thyroid with non-radioactive iodine. Since additional iodine will not be absorbed by the thyroid, any radioactive iodine subsequently taken up by the body will remain spread throughout the body and will be quickly excreted.
Total Effective Dose Equivalent (TEDE)	Health	The sum of the internal and external radiation doses received from a given exposure to radiation and intake of radioactive material.
Total Effective Dose Equivalent (TEDE)	REP Program Manual, Appendix B	The sum of the deep dose equivalent (for external exposures) and for committed effective dose equivalent (for internal exposures).
Total Effective Dose Equivalent (TEDE)	Franklin County	 The sum of the deep dose equivalent from external gamma radiation and the Committed Effective Dose Equivalent (CEDE) from internal exposures.
Traffic Control	REP Program Manual, Appendix B	All activities accomplished for the purpose of facilitating the evacuation of the general public in vehicles along specific routes.
Traffic Control Point (TCP)	Health	Location on primary or secondary road where it crosses the Food Control Area boundary.
Transient Persons	REP Program Manual, Appendix B	Non-residents - Persons who do not permanently reside in the plume exposure pathway emergency planning zone, but may be present during an emergency.
Transportation Dependent Individuals	Benton County Franklin County	Those individuals who do not have their own transportation and must depend on other individuals, taxis, or public transportation.
Turn - Back Values	Benton County Franklin County	Total accumulated external limits or exposure rates, established by the Offsite health authority, at which the Emergency Worker should leave the area without further consultation or direction.
Unannounced exercise (or drill)	EMD	An exercise (or drill) for which knowledge of the exact date and time is restricted to those individuals with a need to know.
Unified Dose Assessment Center (UDAC)	EMD	An area within the Hanford Site EOC which houses the personnel responsible for the coordination of radiological monitoring teams, collection of radiological monitoring data, calculation of dose projections, and the recommendation of protective actions for the Emergency Planning Zones. Also see Dose Assessment Center (DAC) and Meteorological Unified Dose Assessment Center (MUDAC).
United States Department of Energy (DOE)	Benton County Franklin County EMD	The United States Department of Energy is the Federal agency responsible for a broad array of energy research, development, and materials production activities. The U.S. Department of Energy is responsible for management of the

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Term	Reference/ Source	Definition
		Hanford Site located in Benton, Franklin and Grant Counties, Washington through its Richland Operations Office (RL) and provides resources support in the event of a fixed nuclear facility incident.
Unrestricted Area	Health	The area where radiation dose rates are less than twice background.
Unusual Event (UE) Classification	EMD	The least serious emergency. It means there is a minor problem at the facility being handled by facility workers.
Urgent medical condition	EMD	Medical problems for which a delay in treatment may cause extended recovery time, reduced level of recovery, or death.
Walk-through		A type of evaluation in which evaluators inspect the physical layout of a facility or area including equipment, attendant resources, and procedures to determine conformity with specific ORO plans.
Warning		A notification to the public in advance of anticipated emergency.
Washington Administrative Code (WAC)	Legislature	Washington Administrative Code — Regulations of executive branch agencies are issued by authority of statutes. Like legislation and the Constitution, regulations are a source of primary law in Washington State. The WAC codifies the regulations and arranges them by subject or agency. The online version of the WAC is updated twice a month.
Washington Nuclear Project (WNP)	EMD	A term used to designate facilities of Energy Northwest facilities on the Hanford site. Now known as the Columbia Generating Station.
Washington Public Power Supply System (Supply System)	EMD	A public corporation operating the only commercial nuclear power plant in the State of Washington. Now doing business as Energy Northwest.
Wedge	EMD	An angle centered about the downwind bearing. Used to indicate a larger area of concern for emergency planning than that provided by the output of a dispersion model. For example, the D2PC dispersion model assumes that the area surrounding the release is flat and open, and that there will be no changes in the wind direction after the release. For this reason, a wedge is often used to account for model limitations

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Facility Notification Forms	1/12/2018

Appendix 2 – Facility Notification Forms

Summary of Changes:

- New chapter. Contains text from 2014 FNF Plan sections: Appendix 4
- Highlighted sections identify added or modified text.

Columbia Generating Station Classification Notification Form, Page 1 of 2

1	Type of Event: a.	COLUMBIA GE CLASSIFICATION N				2 No: _	
3	Notification Provided E (Emergency Director) Name (Print):	(509)	a. II b. F c. T d. F	ssification/Stantial Classificat declassification fermination AR Changes/Anformation	ion	Time:	Date:
	Sect	ion Map	(5) a. [] U	NUSUAL EVE	NT re Actions Red		
	270 OFF PARK 1228M	WHATCHER TO THE PROPERTY OF TH	c. S Autor EVAC	Misite Protective TE AREA EM matic Protective UATE: Columbia River Vahluke Huntin Hom Rapids Reserved ENERAL EME	ing Area eccreation Area/ ERGENCY ive Action Reco	ommendation Ringold Fishin Schools in EP ORV Park	g Area
8		prological Data: ph from degrees No	6 PROTE <u>IF</u> a Ger <u>THEN</u> R	CTIVE ACTION neral Emerger defer to PPM 1	RECOMMEN ney is declared 3.2.2 "Determined, This section	DATIONS ning PARs".	licable
9	☐ No Release(Block 10	,11&12 are N/A) Release	Basis for PA	Rs: Not Ap	plicable [Radiological	Plant
10		1 Estimated Start of Release:	0-2 miles	Continu t		miles	Costino 4
	☐ N/A ☐ Airborne ☐ Water	☐ N/A Time/Date: Release Terminated: Time/Date:	□ Shelter In Place □ Evacuate	Section 1 Monitor & Prepare Shelter in Place Evacuate	Section 2 Monitor & Prepare Shelter in Place Evacuate	Section 3 Monitor & Prepare Shelter In Place Evacuate	Section 4 Monitor & Prepare Shelter In Place Evacuate
12	State Criteria met for administering Kl(Information only) N/A No Yes		Resp	n-Site Facilitie	nnel are to rep	thwest Office (Complex,
13	EAL# Descript	ion;					
Add	itional Information;	-					
14	Prognosis of Situation		table c.	Escalating	d. 🗌 Improv	ing	

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Columbia Generating Station Classification Notification Form, Page 2 of 2

Completion of Classification Notification Form (CNF)

Completing the form

- Block 1. Type of event: For actual emergencies, the block "Emergency" should be checked. For drills or exercises, the block "Drill" should be checked.
- Block 2. Classification Form Number: This is a sequential number indicating the order of offsite notifications.

 The first CNF is #1 followed by #2, etc.
- Block 3. Notification provided by. This is the name of the Emergency Director providing the information for the Crash call. Phone number is the number at which the notifier can be contacted.
- Block 4. Classification/Statues: a-e.
 - Item a or b: The time listed is the time at which the ED declares the emergency classification or upgrade. This time starts the 15-minute notification requirement.
 - Item c.: Termination, no Classification Level should exist or be marked.

 A CNF and Crash must be initiated at the termination of a drill or actual event.
 - Item d.: If additional PARs are required after the CNF for the GE has been transmitted, complete this block.

 The need for additional PARs requires notifications be completed within 15 minutes of the time in the block.
 - Item e.: Periodic information updates such as release information, KI, prognosis, and changes in Met conditions should be provided at least once an hour.
- Block 5. Check block for appropriate emergency classification.

 (UNUSUAL EVENT, ALERT, SITE AREA EMERGENCY, GENERAL EMERGENCY)
- Block 6. When a General Emergency is declared, Refer to PPM 13.2.2 "Determining Protective Action Recommendations", Check applicable sections/actions and communicated during the Crash call for the GE, If a GE is NOT declared, this section is N/A and does NOT need to be filled in.
- Block 7. Identify whether the event is security based (Auto Dialer Scenario 191) and reporting location for Offsite Response Organization (ie. County and State Personnel) responding to CGS.
- Block 8. Enter Meteorological data. Following a release, if meteorological data changes ensure additional PARs are considered and provide offsite notification. To convert Delta T to stability class, refer to PPM 13.8.1.
- Block 9. If there is a No RELEASE, then blocks 10, 11 & 12 are N/A.
 If there is a RELEASE then enter information in blocks 10, 11 & 12.
 If RELEASE starts after CNF and CRASH notification has been completed, then provide new CNF and Crash notifications to offsite agencies as soon as RELEASE Criteria has been met.
- Block 10. If there is a RELEASE, mark it as airborne or water.
- Block 11. If there is a RELEASE, enter the start time. Enter stop time following release termination.
- Block 12. The block with information on the State's criteria for KI is an information notification not a PAR
- Block 13. Enter the EAL number. Provide a short description of the event. Do not use jargon and avoid acronyms.
- Block 14. Enter Prognosis of Situation. This is a judgment call primarily relating to the condition of the reactor.
- Block 15. Ensure the Emergency Director has signed the form prior to transmittal to the offsite agencies.

Additional information to consider when completing the CNF

- CNF must be filled out in entirely prior to transmittal to offsite agencies. Transmittal of the CNF should occur prior to
 initiation of each Crash Call. The requirement to complete 15-minute notifications to the offsite agencies should not
 be delayed if the time needed to complete the form would impact the notification requirement. In cases where the
 Crash Call is initiated prior to transmittal, the form should be filled out and transmitted as soon as possible.
- When the Control Room is providing emergency classifications, they will ensure the SCC has received the CNF at
 which time the SCC will follow up with the offsite agencies to ensure they have received the information. If the SCC is
 not available, the Control Room Notifier must provide the information block by block to the offsite agencies.
- If the CNF information is being communicated from the EOF or TSC, all information on the form must be verbally communicated. When communicating the CNF information, it must be communicated block by block for each of the blocks.
- If an error on the CNF is recognized during the Crash Call, the correction should be noted on the CNF, initialed, and communicated during the Crash Call.
- If an error is recognized in block 4, 5, 6, 8, 9, 10, 11, 12 or 13 after the Crash Call has concluded, a new corrected CNF with the next sequential number should be completed, transmitted, and followed up with a Crash Call.

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U. S. Department of Energy Hanford Emergency Notification Form

(REV (09/12			U.S. DEPARTMEN HANFORD EMERGENCY		
0	NOTIFICATIO	N PROVIDED BY:	Name:		Phone: (509)
2	AREA AND F	ACILITY:		_	3 TYPE EVENT: a. Emergency b. Exercise/Drill
4	CLASSIFICAT	TION/STATUS:	a. Initial Classification b.	Reclas	ssification c. Correction
			d. PAR Change/Addition e.	☐ Inform	nation f. Termination
5	EMERGENCY	CLASSIFICATION	LEVEL AND OFFSITE PROTECTIVE A	CTION RE	COMMENDATIONS:
	AREA	a. ALERT	b. SITE AREA EMERGENO	CY	c. GENERAL EMERGENCY
	☐ 100K	None	Evacuate Columbia River from Vernit White Bluffs Ferry Landing.	a Bridge to	Evacuate Columbia River from Vernita Bridge to White Bluffs Ferry Landing. Evacuate Section 5, east of Hwy. 24.
	200E	None	None		Evacuate Columbia River from Vernita Bridge to Leslie Groves Park. Evacuate Sections 5, 6, and 7.
	☐ 200W ¹	None	None		None
	☐ 200W ²	None	Evacuate Columbia River from Vernit White Bluffs Ferry Landing.	a Bridge to	Evacuate Columbia River from Vernita Bridge to White Bluffs Ferry Landing. Evacuate Sections 5 and 7.
	300	None	Evacuate Columbia River from White	Bluffs	Evacuate Columbia River from White Bluffs Ferry
			Ferry Landing to Leslie Groves Park.		Landing to Leslie Groves Park. Evacuate 2.2 mile radius.
	Other	None	None		Evacuate Columbia River from Vernita Bridge to
	1For emerge	ncies at I I Plant RI	 EDOX, 222-S, 224-T, 283W, or 200W Tan	k Farms	Leslie Groves Park.
			G, CWC, T Plant, or WRAP.	ik i dillio.	
6-	TYPE OF IN	CIDENT:			
	a. Securi	ity Incident	Yes No No		
					Table
			KLEF 1.0, Appendix 1		rable
	Description	of Incident:			
	-				
				20 37500	
•	RELEASE T	O THE OUTSIDE E	ENVIRONMENT INFORMATION:	8	METEOROLOGICAL DATA:
		lease (No indicato		1 [Wind Speed mph
	_		possible release, but not confirmed)		Wind Direction: from
	hazard	dous release)	ible or instrument indication of	1 1	Precipitation: Yes No
		nated Start Time of irborne S			Stability Class:
		se Terminated - Ti	_		A B C D E F G
9		S OF SITUATION:	a. Unknown b. Sta	able	c. ☐ Escalating d. ☐ Improving
_					
Œ	ADDITIONAL	L OFFSITE PROTE	ECTIVE ACTION RECOMMENDATIONS:		
APPR	ROVED:				DATE: TIME:

1	
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Framatome, Inc., Incident Notification Form, Page 1 of 2

AREVA Proprietary

EHS&L Document Emergency Preparedness – Part III Incident Notification Form

E08-03-4.1 Version 6.0 Page 1



	(Fo	rmat = YYYYMMDD-XXX)
ILL READ THIS FORM TO YO	U AND THEN FAX IT TO YOU A	AFTERWARDS.
This is [name]	, Callbac	k phone(509) 375-8350
Of the AREVA Inc. facility in R	ichland, WA.	
We have an event that is an:	Actual Emergency	Exercise / Drill
The type, date, and time of this	s classification is:	
Туре	Date (MM/DD/YYYY)	Time (24 hr format)
Initial Classification		
Periodic Update		
Reclassification		
PAR Change Only		
Termination		
The emergency classification i	s: (check all that apply)	
Alert	HazMat Level 2	None
Site Area Emergency [PAR Required]	HazMat Level 3 [PAR Required]	Not Yet Classified
The type of incident is: (check	all that apply)	
Radiological	Fire	Security
Criticality (Actual)	Explosion	Other:
Criticality (Potential)	Hazardous Materials	
Description of Incident: [Kee	ep it simple, free of jargon and	acronyms]
	This is [name]Of the AREVA Inc. facility in R We have an event that is an: The type, date, and time of this Type Initial Classification	This is [name]

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Framatome, Inc., Incident Notification Form, Page 2 of 2

m	S&L Document ergency Prepar ident Notification	edness – Pa	art III			Version Pag
,	A release:					
	Is not ex	pected				
	May star	t at [time]		and may last for	hours	
				and may last for		
	Has bee	n terminated	t			
	The weather:					
	Wind speed ap	proximately		_ mph with direction from	to	
	Precipitation:	Yes	_	_ No		
	Offsite assistan	ce requeste	d includes	(check all that apply)		
					Other:	
	None	_				
	None Ambular			Enforcement		
		ice _	Law I	Enforcement		
0.	Prognosis of th Unknow The Protective Shelter i	e situation is n Action Reco	Law l s: Stable emmendation			
0.	Prognosis of th Unknow The Protective Shelter i Evacuat Shelter i	e situation is n Action Reco n 1 mile zon e 1 mile zon n zone(s):	Law l Stable Stable emmendation	Escalatir	: [Mark all tha	t Apply]
0.	Prognosis of th Unknow The Protective Shelter i Evacuat Shelter i	e situation is n Action Reco n 1 mile zon e 1 mile zon n zone(s):	Law l Stable Stable emmendation	Escalating Escalating (PAR) for OFFSITE is:	: [Mark all tha	t Apply]
0.	Prognosis of th Unknow The Protective Shelter i Evacuat Shelter i Evacuat None	e situation is n Action Reco n 1 mile zon e 1 mile zon n zone(s): _ e zone(s): _	Law l s: Stable mmendation e	Escalating Escalating (PAR) for OFFSITE is:	: [Mark all tha	t Apply]
0.	Ambular Prognosis of th Unknow The Protective Shelter i Evacuat Shelter i Evacuat None The basis for th	e situation is Action Reco n 1 mile zon e 1 mile zon n zone(s): e zone(s):	Law I	Escalating Escala	: [Mark all tha	t Apply]
0.	Ambular Prognosis of th Unknow The Protective Shelter i Evacuat Shelter i Evacuat None The basis for th	e situation is n Action Reco n 1 mile zon e 1 mile zon n zone(s): e zone(s):	Law I	Escalating	: [Mark all tha	t Apply]
0.	Ambular Prognosis of th Unknow The Protective Shelter i Evacuat Shelter i Evacuat None The basis for th	e situation is n Action Reco n 1 mile zon e 1 mile zon n zone(s): e zone(s): dis OFFSITE	Stable mmendations e	Escalating	: [Mark all tha	t Apply]
0.	Ambular Prognosis of th Unknow The Protective Shelter i Evacuat Shelter i Evacuat None The basis for th Radiolog Criticality	e situation is Action Reco n 1 mile zon e 1 mile zon n zone(s): e zone(s): gical Materia y on in effect C	Stable mmendations e	Escalating	: [Mark all tha	t Apply]
0.	Ambular Prognosis of th Unknow The Protective Shelter i Evacuat Shelter i Evacuat None The basis for th Radiolog Criticality	e situation is Action Reco n 1 mile zon e 1 mile zon n zone(s): e zone(s): gical Materia y on in effect C ite shelter	Stable mmendations e	Escalating	: [Mark all tha	t Apply]
0.	Prognosis of the Unknown The Protective Shelter in Evacuate None The basis for the Radiolog Criticality Protective Action	e situation is Action Reco n 1 mile zon e 1 mile zon n zone(s): e zone(s): gical Materia y on in effect C ite shelter	Law I	Escalating	: [Mark all tha	t Apply]
0.	Ambular Prognosis of th Unknow The Protective Shelter i Evacuat Shelter i Evacuat None The basis for th Radiolog Criticalit Protective Actio Partial s Site-wide	Action Reconnumber 1 mile zone 1 mile zone 2 zone(s):	Law l	Escalating	: [Mark all tha	t Apply]

Appendix 2	Revision 0
Facility Notification Forms	1/12/2018

Naval Nuclear Propulsion Program Civil Authority Notification Form, Page 1 of 2

NOTIFICATION PRO	VIDED BY: Name:	Phone	No:	Date:	
FACILITY: Naval	Base Kitsap (NBK)-Bremertor	NBK-Bangor	NAVSTA	Everett 🔲 OTH	ER:
TYPE OF NOTIFICAT	ION/TIME OF EVENT: a E	Emergency b.	Drill/Exercise	c. Time of Ever	nt:
CLASSIFICATION ST Prellminary Classific Follow-up classific (Based on off-site s Termination (Release	cation Time: ation urveys) Time:	Chan	ctive Action Rec ge/Addition/Refi mation		Time:
Reactor system (Lo YES / NO / UNKN YES / NO / UNKN YES / NO / UNKN Radiological (liquid	OWN Reactor compartment co OWN Ship containment set I spill associated with: React dent involving radioactive materia	e, Loss of Flow – if kn ntainment set or system discharge	Other:	2	
PLUME STAGE EME	RGENCY CLASSIFICATION LE	VEL & OFF-SITE P	ROTECTIVE AC	TION RECOMM	ENDATIONS:
UNUSUAL EVENT 0.01 rem TEDE 0.05 rem CDE Thyroid	No specific action by state are Facility monitoring teams have				
ALERT 01 to < 0.1 rem TEDE 05 to < 0.5 rem CDE Thyroid	State and Local authorities si No specific action by the pub Facility monitoring teams had Recommend steps be taken to	lic is required at this t ve been dispatched of	f-site,	public:	
EMERGENCY 1 to < 1 rem TEDE i to < 5 rem CDE Thyroid	Establish Coast Guard Mar Public and Private Buses 2. Recommend preparatory step or take shelter. 3. Facility monitoring teams have	s be taken for directin			ctors to evacuat
EMERGENCY rem TEDE rem CDE Thyroid	Recommend that the general Recommend steps be taken t Establish Coast Guard Mar Public and Private Buses Facility monitoring teams have	public in specific sect o control access: ine Safety Zone	ors be directed t Public and privat Other:	o evacuate or take	
METEOROLOGICAL Wind Direction (from):	201 212 21		Precipitat	ion: Yes	No
PROGNOSIS OF SIT	13-114-114-11-11-11-11-11-11-11-11-11-11-1	(Circle one)			
Unknown	b. Stable c, Es	calating d.	_ Improving		
	nbulance #Injured:@ d (Water Safety Zone) 🔲 Depar	# Contamin tment of Energy (DOE to restrict over-flights			c. 🗌 Fire
EOP 2-4-3 CH-23 (11/12)		B-1		A	ppendix B

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Naval Nuclear Propulsion Program Civil Authority Notification Form, Page 2 of 2

10. RELE	ASE INFORM	ATION:			
a. On-site Release	c. Release:	Airborne	Direct Radiation	d. Estimated Re	
Yes No	(Check all that apply)	Waterborne (to	waterways – not from fallout)	Assumed Du	ration of Release:
. Off-site release Yes No	in apply	Cobalt 50, Elevated Release	Fission Products Ground/Water level Release		ually Terminated at lon of Release:
f. Perimeter and	d Off-Site Dat	a:			
SUR	VEY LOCATIO	ON		RE	LEASE (Circle one)
	AC 300 A	mR/h	at(survey height) _	Time	During/After
		mR/h	or at(survey height)	Time	During/After
		mR/h	nr at(survey height)	Time	During/After
		unci	/100 cm ²	Time	During/After
			100 cm ²	Time	During/After
		uuCl	/100 cm ²	Time	During/After
		uc/n	nl (air) (Radiolodine sample) _	Time	During/After
		uCl/n	ni (air) (Radioiodine sample)	Time	During/After
		ucl/n	nl (air) (Radiolodine sample) _	Time	During/After
		uc/n	ni (water)	Time	During/After
		uCl/n	ni (water)	Time	During/After
		ucl/n	ni (water)	Time	During/After
n Diuma Stage	Doca Pates	and Airharna I aval	s at Site Boundary:		
			William Control of the Control of th	all wastername	C
The state of the state of	mrem/hr (W		uCi/ml airborne	The second second second	Cobalt 60)
n. Plume Stage	DOSE at Site	Boundary:	mrem (Whole B	lody)	mrem (Thyroid
. Post-Plume S	tage Dose at	Site Boundary - S	see attached NARAC Plot:		
otal Effective Do	se Equivalen	it (4-Days) (TEDE):		mrem Who	ole Body
					and the same
1. POST PLUME	STAGE PRO	TECTIVE ACTION	S:		
enerally the Star Changing / W			ost-plume protective actions. Son thowering Opening with		protective actions are dences / businesses
N/A					
			B-2		
EOP 2-4-	3				Appendix B

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Appendix 3	Revision 0
Atmospheric Stability Categories	1/12/2018

Appendix 3 – Atmospheric Stability Categories

Summary of Changes:

- New chapter. Contains text from 2014 FNF Plan sections: Appendix 6
- Highlighted sections identify added or modified text.

These Atmospheric Stability Categories are used on the Washington State Emergency Operations Center (EOC) Weather Charts, Energy Northwest Classification Notification Form (CNF), United States Department of Energy Hanford Site Notification Form, and Naval Nuclear Propulsion Program Event Classification/Notification Form.

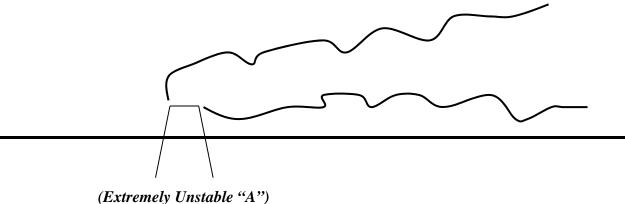
Classification	Pasquill Stability Category
Extremely Unstable (Very Unstable)	A
Moderately Unstable (Unstable)	В
Slightly Unstable (Slightly Unstable)	C
Neutral (Neutral)	D
Slightly Stable (Slightly Stable)	Е
Moderately Stable (Moderately Stable)	F
Extremely Stable (Very Stable)	G

Figure 3-1 - Atmospheric Stability Categories

I. PASQUILL STABILITY CLASSES GENERAL DESCRIPTIONS AND DEFINITIONS

A. Extremely Unstable "A"

Weather conditions are very unpredictable. Wind speed average 1 meter/second but is "gusty." The temperature rapidly decreases with altitude. This condition is called superadiabatic. It is common on a hot sunny day. Due to these conditions, a contamination plume would loop and be unpredictable.



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Atmospheric Stability Categories	1/12/2018

B. MODERATELY UNSTABLE "B"

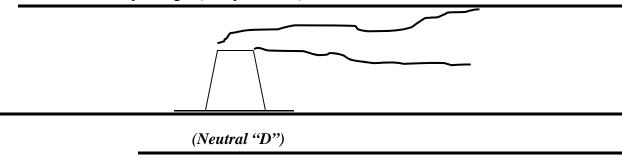
Weather conditions are still unpredictable, but less so than "A." Wind speed averages two meters/second, and is not gusty. The temperature still decreases, but not as rapidly, with altitude. Looping of a plume would still occur, but is not as severe. This condition is common on a sunny warm day.

C. SLIGHTLY UNSTABLE "C"

Weather conditions are somewhat unpredictable. Wind speeds average five meters/second. A little gustiness may be expected. The temperature still decreases and looping of a contamination plume may occur, but progressively less pronounced than "A" or "B" categories. This is an average day, slightly cloudy.

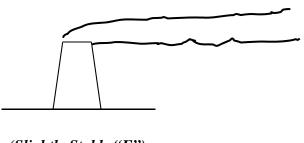
D. NEUTRAL "D"

Weather conditions are more predictable. Wind speeds average five meters/second, with no expected gustiness. The temperature still decreases with altitude, but the change is less pronounced. At this point, the condition name changes from "superadiabatic" to "adiabatic." A contamination plume is more predictable, with minor looping. This condition is common on an overcast day or night (heavy overcast)



E. SLIGHTLY STABLE "E"

Weather conditions turn more predictable than with "D." Wind speeds average three meters/second. The temperature does not change with altitude. This condition is called "isothermic." A contamination plume is easy to predict with theis condition. "Coning" of the plume occurs. This condition generally occurs at night, and is considered an average night (partly cloudy).

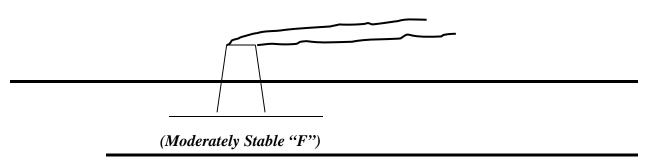


(Slightly Stable "E")

Appendix 3	Revision 0
Atmospheric Stability Categories	1/12/2018

F. MODERATELY STABLE "F"

Weather conditions become very predictable. Wind speeds average two meters/second. This is an inversion. Temperatures increase with altitude. This condition is opposite of a Category "A." With this condition, little vertical dispersion occurs, i.e., it doesn't reach the ground rapidly.



G. Extremely Stable "G"

This condition is very predictable, but rarely occurs. No winds blow and the temperature increases rapidly with altitude. This condition may occur over a city, which acts even less pronounced than the "F" condition.

II. Notes

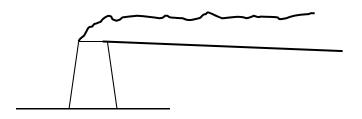
- The **Unstable classes** (A, B, and C) occur during the daytime. Class A is 'Very Unstable' and corresponds to hot, calm days, which leads to the greatest amount of dispersion. A plume of smoke is broken up and spread widely with 'A' Stability.
- The **Neutral class** D can occur during day or night and corresponds to windy days or to the transform times of dawn and dusk. This is the most frequently occurring stability class.
- The **Stable classes** (E and F) only occur at night. Class F is 'Very Stable' and corresponds to nights with low winds. A plume experiencing 'F' Stability will feature very little dispersion.

Stability classes also change with altitude, with day and night changes.

Inversions (stable) can occur at low altitudes, and can be topped by an unstable class. When this occurs "lofting" of a plume occurs, i.e., the contamination is carried higher into the atmosphere.

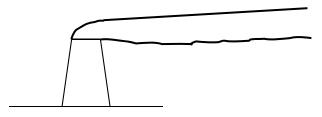
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Appendix 3	Revision 0
Atmospheric Stability Categories	1/12/2018



(Stable topped by an Unstable)

Or the opposite can occur. Closer to the ground it can be unstable while the inversion can exist at higher altitudes. When this occurs, fumigation occurs, i.e., plume rapidly disperses to the ground.



(Unstable at ground with inversion above)

Appendix 4	Revision 0
NUREG-0654 Plan Criteria Responsibilities	1/12/2018

Appendix 4 – NUREG-0654 Plan Criteria Responsibilities

Summary of Changes:

- New chapter. Contains text from 2014 FNF Plan sections: Appendix 6
- Highlighted sections identify added or modified text.

The figure below lists the NUREG-0654 / FEMA-REP-1 Planning Standard and Evaluation Criteria and the agency responsible for developing plans and procedures to meet those requirements.

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning \$	Standard A	- Assignment	of Respo	nsibility	(Organiza	tion Control)	
A.1.a	Х	Х	Х	Х	Х	Х	
A.1.b	Х	Х	Х	Х	Х	Х	
A.1.c	Х	Х	Х	Х	Х	Х	
A.1.d	Х	Х	Х	Х	Х	Х	
A.1.e	Х	Х	Х	Х	Х	Х	
A.2.a		X	Х	Х	Х	X	
A.2.b		Х	Х	Х	Х	Х	
A.3	Х	Х	Х	Х	Х	Х	
A.4	Х	Х	Х	Х	Х	Х	

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning S	Standard B	- On-Site Eme	rgency Oı	ganizat	ion		
B.1	Х						

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NUREG-0654 Plan Criteria Responsibilities	1/12/2018

B.2	Х			
B.3	Х			
B.4	Х			
B.5	Х			
B.6	Х			
B.7	Х			
B.8	Х			
B.9	Х			

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning S	Standard C	- Emergency F	Response	Suppor	t and Reso	ources	
C.1.a	Х	Х	Х	Х			
C.1.b	Х	Х	Х	Х			
C.1.c	Х	Х	Х	Х	Х	Х	
C.2.a		Х	Х	Х	Х	Х	
C.2.b	Х						
C.3	Х	Х	Х	Х			
C.4	Х	Х	Х	Х	Х	Х	
C.5	Х						
C.6	Х	Х	Х	Х	Х	Х	

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning S	Standard D	- Emergency (Classifica	tion Sys	tem		

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NUREG-0654 Plan Criteria Responsibilities	1/12/2018

D.1	Х						
D.2	Х						
D.3		Х	Х	Х	Х	Х	
D.4		Х	Х	Х	Х	Х	

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning S	Standard E -	- Notification I	Methods a	and Prod	edures		
E.1	Х	Х	Х	Х	Х	Х	
E.2	Х	Х	Х	Х	Х	Х	
E.3	Х						
E.4	X						
E.5	Х	Х	Х	Х	Х	Х	
E.6	Х	Х	Х	Х	Х	Х	
E.7	Х	Х	Х	Х	Х	Х	

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning S	Standard F -	- Emergency C	Communic	cations			
F.1.a	X	Х	Х	Х	Х	Х	
F.1.b	Х	Х	Х	Х	Х	Х	
F.1.c	Х	Х	Х	Х	Х	Х	
F.1.d	Х	Х	Х	Х	Х	Х	
F.1.e	Х	Х	Х	Х	Х	Х	
F.1.F	Х						

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F.2	Х	Х	Х	Х	Х	Х	
F.3	Х	Х	Х	Х	Х	Х	

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Planning S	Standard G	– Public Educa	ation and	Informa	tion		
G.1	Х	Х	Х	Х	Х	Х	
G.2.	Х	Х	Х	Х	Х	Х	
G.3.a	Х	Х	Х	Х	X	Х	
G.3.b	Х						
G.4.a	Х	Х	Х	Х	Х	Х	
G.4.b	Х	Х	Х	Х	Х	Х	
G.4.c	Х	Х	Х	Х	Х	Х	
G.5	Х	Х	Х	Х	Х	Х	

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning \$	Standard H	- Emergency F	acilities a	and Equ	ipment		
H.1	Х						
H.2	Х						
H.3		Х	Х	Х	Х	Х	
H.4	Х	Х	Х	Х	Х	Х	
H.5	Х						
H.6	Х						
H.7	Х	Х	Х	Х	Х	Х	

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H.8	Х						
H.9	Х						
H.10	Х	Х	Х	Х	Х	Х	
H.11	Х	Х	Х	Х	Х	Х	
H.12	Х	Х	Х	Х	Х	Х	

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning S	Standard I –	Accident Asse	ssment				
I.1	Х						
1.2	Х						
1.3	Х						
1.4	Х						
1.5	Х						
1.6	Х						
1.7	Х	Х	Х	Х	Х	Х	
1.8	Х	Х	Х	Х	Х	Х	
1.9	Х	Х	Х	Х	Х	Х	
I.10	Х	Х	Х	Х			
I.11		Х	Х	Х			

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning S	Standard J -	- Protective Re	sponse				
J.1	Х						

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J.2	X	Х	Х	X	Х	Х	
J.3	Х						
J.4	Х						
J.5	Х						
J.6	Х						
J.7	X						
J.8	Х						
J.9		Х	Х	Х	Х	Х	
J.10.a	Х	Х	Х	Х	Х	Х	
J.10.b	Х	Х	Х	Х	Х	Х	
J.10.c	Х	Х	Х	Х	Х	Х	
J.10.d		Х	Х	Х	Х	Х	
J.10.e		Х	Х	Х	Х	Х	
J.10.f		Х	Х	Х	Х	Х	
J.10.g		X	Х	Х	Х	Х	
J.10.h		Х	Х	Х	Х	Х	
J.10.i		Х	Х	Х	Х	Х	
J.10.j		Х	Х	Х	Х	Х	
J.10.k		Х	Х	Х	Х	Х	
J.10.I		Х	Х	Х	Х	Х	
J.10.m	Х	Х	Х	Х			
J.11		Х	Х	Х			
J.12		Х	Х	Х	Х	Х	

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NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes			
Planning S	Planning Standard K - Radiological Exposure Control									
K.1	Х									
K.2	Х									
K.3.a	Х	X	Х	Х	Х	Х				
K.3.b	X	Х	Х	Х	Х	Х				
K.4		Х	Х	Х	Х	Х				
K.5.a	Х	Х	Х	Х	Х	Х				
K.5.b	Х	X	Х	Х	Х	Х				
K.6	Х									
K.7	Х									
NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes			
Planning Standard L – Medical and Public Health Support										
L.1	Х	Х	Х	Х	Х	Х				
L.2	Х									
L.3		Х	Х	Х						
L.4	X	Х	Х	Х	Х	Х				

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes		
Planning Standard M – Recovery and Reentry Planning and Post-Accident									
	Operations								

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M.1	X	Х	Х	Х	Х	Х	
M.2	X						
М.3	х	X	х	×	Page II- 123 RPM, June 2013	Page II- 123 RPM, June 2013	Page II-123 RPM, June 2013 for explanation
M.4	Х	Х	Х	Х			

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes			
Planning S	Planning Standard N – Exercises and Drills									
N.1.a	Х	Х	Х	Х	Х	Х				
N.1.b	Х	Х	Х	Х	Х	Х				
N.1.c	Х									
N.1.d		Х	Х	Х	Х	Х				
N.2.a	X	X	Х	Х	Х	X				
N.2.b	Х									
N.2.c	Х				Х	Х				
N.2.d	X	X	Х	Х	Х	X				
N.2.e (1)	Х	х	Х	х			See Page II- 134 RPM, June 2013 for explanation			
N.2.e (2)	х						See Page II- 135 RPM, June 2013 for explanation			
N.3	Х	Х	Х	Х	Х	Х				
N.4	X	Х	Х	Х	Х	Х				

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N.5	Х	Х	Х	Х	Х	Х	

NUREG- 0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes				
Planning S	Planning Standard O – Radiological Emergency Response Training										
0.1	Х	Х	Х	Х	Х	X					
O.1.a	Х										
O.1.b		Х	Х	Х	Х	Х					
0.2	Х										
0.3	Х										
O.4.a	Х	X	Х	X	X	Х					
O.4.b	х	Х	Х	Х	Page 11- 140 RPM June 2013	Page 11- 140 RPM June 2013	See Page II-140 RPM, June 2013 for explanation				
O.4.c	х	Х	Х	Х	Page 11- 141 RPM June 2013	Page 11- 141 RPM June 2013	See Page II-141 RPM, June 2013 for explanation				
O.4.d	Х	Page 11- 141 RPM June 2013	Page 11- 141 RPM June 2013	Page 11-141 RPM June 2013	Х	х	See Page II-141 RPM, June 2013 for explanation				
O.4.e	X										
O.4.f	х	Page 11- 142 RPM June 2013	Page 11- 142 RPM June 2013	Page 11-142 RPM June 2013	Х	х	See Page II-142 RPM, June 2013 for explanation				
O.4.g	X				X	X					
O.4.h	X	Х	X	X	Х	Х					
O.4.i	Х										
O.4.j	X	Х	X	Х	Х	Х					

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O.5	X	X	X	Χ	Χ	Χ	

NUREG -0654 / FEMA- REP-1	Licensee	State Agriculture	State Health	State EMD	Plume County	Ingestion County	Notes
Planning	Standard P	- Responsibil	ity for the	Planning	Effort Deve	elopment,	
		Perio	dic Review	and Dist	ribution of	Emergency	Plans
P.1	Х	Х	Х	Х	Х	Х	
P.2	Х	Х	Х	Х	Х	Х	
P.3	Х	Х	Х	Х	Х	Х	
P.4	Х	Х	Х	Х	Х	Х	
P.5	Х	X	Х	Х	Х	X	
P.6	X	X	Х	X	Х	X	
P.7	Х	Х	X	Х	Х	X	
P.8	Х	Х	Х	Х	Х	X	
P.9	Х						
P.10	X	Х	X	Х	X	X	

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Appendix 5 – NUREG-0654/FEMA-REP-1 Cross Reference

Summary of Changes:

- New chapter. Contains text from 2014 FNF Plan sections: Appendix 12
- Highlighted sections identify added or modified text.

Abbreviation	Description
App	Appendix
BP	Basic Plan (Sections are part of the Basic Plan)
CGS	Columbia Generating Station
DOH	Washington State Department of Health
DOH RERPP	Department of Health, Radiological Emergency Response Plan and Procedures
ENW	Energy Northwest
F	Foreword
Fig	Figure
LO	Licensee Only
NA	Not Applicable
Para	Paragraph
TOC	Table of Contents
PO	Plan Overview
P	Promulgation Page
RR	Record of Revisions
WSDA	Washington State Department of Agriculture

EXAMPLE: BP, Section VII, Para 5, 2.1 a and b = "Basic Plan, Section VII, Paragraph 5.0 Sub-paragraph 2.1, a and b"

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Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Plannin	g Standard A – Assignment of Responsibility (Organization	n Control)		
A.1.a	Each plan shall identify the State, local, Federal, and private sector organizations (including utilities), that are intended to be part of the overall response organization for Emergency Planning Zones (See [NUREG-0654/FEMA-REP-1] Appendix 5). ✓ Describe all Federal, State, local, Tribal, and private-sector organizations comprising the overall ORO. Tribal governments submit their own plans /procedures or may choose to be included as part of the State plans/procedures within which the Tribal land falls. ✓ Identify the principal response organizations.	Licensee State Local	Ch. 2	N/A
A.1.b	Each organization and suborganization having an operational role shall specify its concept of operations and its relationship to the total effort. ✓ Specify the organization's role in an emergency. Specify how the organization will carry out its role in an emergency.	Licensee State Local	Ch. 3	N/A
A.1.c	 Each plan shall illustrate these interrelationships in a block diagram. ✓ Include an illustration of each organization and its relationship to the total emergency response effort. 	Licensee State Local	Ch.2	N/A
A.1.d	 Each organization shall identify a specific individual by title who shall be in charge of the emergency response. ✓ Identify a specific individual, by title/position, who is in charge of the emergency response. ✓ Specify who, by title/position, coordinates response activities under the authority of the person in charge. 	Licensee State Local	Ch.2	N/A

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Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
A.1.e	 Each organization shall provide for 24-hour per day emergency response, including 24-hour per day manning of communications links. ✓ Specify who, by title/position, is responsible for managing the communications center. ✓ Describe the procedures to provide for 24-hour emergency response. ✓ Specify where the 24-hour communications center is located. ✓ Refer to a personnel roster for maintaining 24-hour communication. ✓ Specify primary and backup means of notification. 	Licensee State Local	Ch. 2	N/A
A.2.a	Each organization shall specify the functions and responsibilities for major elements and key individuals by title, of emergency response, including the following: Command and Control, Alerting and Notification, Communications, Public Information, Accident Assessment, Public Health and Sanitation, Social Services, Fire and Rescue, Traffic Control, Emergency Medical Services, Law Enforcement, Transportation, Protective Response (including authority to request Federal assistance and to initiate other protective actions), and Radiological Exposure Control. The description of these functions shall include a clear and concise summary such as a table of primary and support responsibilities using the agency as one axis, and the function as the other. (See Section B for licensee.) ✓ Identify key individuals, by title/position, who have emergency response roles. ✓ Describe the responsibilities by functional areas ✓ Include a matrix of these responsibilities by functional area that identifies organizations responsible for primary and support roles. A sample matrix /table is shown in Exhibit II-1.	State Local	Ch. 3	N/A
A.2.b	Each plan shall contain (by reference to specific acts, codes, or statutes) the legal basis for such authorities.	State Local	Ch. 2 Ch. 13	N/A

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Planning Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
 ✓ Identify the legal authority to assign lead responsibility for emergency preparedness to a particular State agency. ✓ Indicate who (e.g., the Governor) may declare a "state of emergency" (or "state of disaster emergency") and what special powers may ensue. ✓ Identify the legal authority to delegate responsibility and authority for preparedness and response at the local level. ✓ Identify any limitations on the authority of Letter of Agreement (LOA) signatories that are relevant to State, local, or tribal statues and not policy. 			
A.3 Each plan shall include written agreements referring to the concept of operations developed between Federal, State, and local agencies and other support organizations having an emergency response role within the Emergency Planning Zones. The agreements shall identify the emergency measures to be provided and the mutually acceptable criteria for their implementation, and specify the arrangements for exchange of information. These agreements may be provided in an appendix to the plan, or the plan itself may contain descriptions of these matters and a signature page in the plan may serve to verify the agreements. The signature page format is appropriate for organizations where response functions are covered by laws, regulations, or executive orders where separate written agreements are not necessary. ✓ Identify assisting organizations and the type of assistance (capabilities and resources) they will provide. ✓ Include LOAs by reference or in a suitable appendix. ✓ Include or reference applicable LOAs between the licensee and ORO including arrangements for access to the NPP site, if appropriate. ✓ State that the LOAs include details on what services will be provided and how the agreements will be activated. ✓ State that LOAs are reviewed annually to verify their validity. (See also Criterion P.4)	Licensee State Local	Ch. 13	N/A

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Planning Standards and Evaluation Criteria		Applicability	Plan Location	Procedure
the	Ach principal organization shall be capable of continuous 4-hour) operations for a protracted period. The individual in the principal organization who will be responsible for assuring ontinuity of resources (technical, administrative, and aterial) shall be specified by title. Identify key individuals, by title/position, who are responsible for ensuring continuity of resources in support of 24-hour operations. Include a reference to a roster that identifies at least two shifts of key staff, as well as provisions for its maintenance. Identify who is responsible, by title/position, for maintaining the roster and where the roster is located. Indicate the shift period (e.g., 8 or 12 hours), and specify that the outgoing staff will brief the incoming staff on the status of the emergency and the response activities occurring. Describe the responsibilities by the functional areas listed above.	Licensee State Local	Ch. 2	N/A

Plannir	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure		
Plannir	Planning Standard B – On-Site Emergency Organization (LICENSEE ONLY)					
B.1	Each Licensee shall specify the onsite emergency organization of plant staff personnel for all shifts and its relation to the responsibilities and duties of the normal staff complement.	Licensee				
B.2	Each licensee shall designate an individual as emergency coordinator who shall be on shift at all times and who shall have the authority and responsibility to immediately and unilaterally initiate any emergency actions, including	Licensee				

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Planni	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
	providing protective action recommendations to authorities responsible for implementing offsite emergency measures.			
B.3	Each licensee shall identify a line of succession for the emergency coordinator position and identify the specific conditions for higher level utility officials assuming this function.	Licensee		
B.4	Each licensee shall establish the functional responsibilities assigned to the emergency coordinator and shall clearly specify which responsibilities may not be delegated to other elements of the emergency organization	Licensee		
B.5	Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity	Licensee		
B.6	Each licensee shall specify the interfaces between and among the onsite functional areas of emergency activity, licensee headquarters support, local service support, and State and local government response organizations	Licensee		
B.7	Each licensee shall specify the corporate management, administrative, and technical support personnel who will augment the plant staff as specified in the table entitled "Minimum Staffing Requirements for Nuclear Power Plant Emergencies (Table B-1) and in the following areas	Licensee		
B.8	Each licensee shall specify the contractor and private organizations who may be requested to provide technical assistance to and augmentation of the emergency organization.	Licensee		
B.9	Each licensee shall identify the services to be provided by local agencies for handling emergencies, e.g., police, ambulance, medical, hospital, and fire-fighting organizations shall be specified	Licensee		

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Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure			
Plannin	Planning Standard C – Emergency Response Support and Resources						
C.1.a	Specific persons by title authorized to request Federal assistance; see A.1.d and A.2.a. ✓ Identify, by title/position, the key officials authorized to request Federal assistance.	Licensee State	Ch. 4	N/A			
C.1.b	 Specific Federal resources expected, including expected times of arrival at specific nuclear facility sites; ✓ A process for identifying potential shortfalls in resources. ✓ Information on and a list of resources that an ORO can expect to receive from the Federal Government. ✓ An estimate of how long it will take those resources to arrive at the desired location. 	Licensee State	Ch. 4	N/A			
C.1.c	 Specific licensee, State, and local resources available to support the Federal response, e.g., airfields, command posts, telephone lines, radio frequencies, and telecommunications centers. ✓ Describe the facilities that may be made available to Federal response personnel. ✓ Identify the general geographical areas for the locations of these facilities and the unique features of the area. ✓ Describe the interoperable communications plans/procedures, equipment, and protocols that may be made available to Federal response personnel. 	Licensee State Local	Ch. 4	N/A			
C.2.a	Each principal offsite organization may dispatch representatives to the licensee's Emergency Operations Facility. (State technical analysis representatives at the EOF are preferred.) ✓ Indicate whether the ORO plans to send a representative to the licensee's emergency operations facility and if so, which person, by title/position, would be dispatched.	State Local	Ch. 4	N/A			

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Planni	Planning Standards and Evaluation Criteria		Plan Location	Procedure
C.2.b	The licensee shall prepare for the dispatch of a representative to principal offsite governmental emergency operations centers.	Licensee		
C.3	 Each organization shall identify radiological laboratories, their general capabilities, and expected availability to provide radiological monitoring and analyses services which can be used in an emergency. ✓ List the laboratories that are qualified to analyze samples of materials that may have been contaminated with radionuclides. ✓ Indicate the radiochemical and analytical capabilities of each laboratory (e.g., the ability to analyze milk and other foodstuffs, soil samples, and water samples). ✓ Indicate the number of samples the laboratories would be able to process in a given period. ✓ Include the location and potential availability of the laboratories. 	Licensee State	Ch. 4 DOH RERPP	N/A
C.4	Each organization shall identify nuclear and other facilities, organizations, or individuals that can be relied upon in an emergency to provide assistance. Such assistance shall be identified and supported by appropriate letters of agreement. ✓ Meet the requirements specified in Criterion A.3.	Licensee State Local	Ch. 4	N/A
C.5	The offsite response organization* shall identify liaison personnel to advise and assist State and local officials during an actual emergency in implementing those portions of the offsite plan where State and local response is identified	Licensee		
C.6	 Each organization shall make provisions to enable onsite response support from OROs in a hostile action-based incident as needed. ✓ Include provisions to allow ORO law enforcement and other initial first responders prompt access to the NPP site. ✓ Include provisions for coordination between in-bound response resources and evacuation efforts. ✓ Identify any mutual aid agreements for alternate personnel to supplement local resources (see also Criterion A.3) 	Licensee State Local	Ch. 4	N/A

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Planning Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
 ✓ Address radiological training requirements for the primary and alternate personnel. ✓ Include procedures for activating qualified alternate personnel. 			

Plann	ing Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Plann	ing Standard D – Emergency Classification System			
D.1	An emergency classification and emergency action level scheme as set forth in [NUREG-0654/FEMA-REP-1] Appendix 1 must be established by the licensee	Licensee		
D.2	The initiating conditions shall include the example conditions found in [NUREG-0654/FEMA-REP-1] Appendix 1 and all postulated accidents in the Final Safety Analysis Report (FSAR) for the nuclear facility.	Licensee		
D.3	Each State and local organization shall establish an emergency classification and emergency action level scheme consistent with that established by the facility licensee. ✓ Include reference to the standard Emergency Classification Levels (ECLs) ✓ Acknowledge that the ECL system will form the basis for determining the level of response to a nuclear incident that will be consistent with the licensee.	State Local	Ch. 5	N/A
D.4	Each State and local organization should have procedures in place that provide for emergency actions to be taken which are consistent with the emergency actions recommended by the nuclear facility licensee, taking into account local offsite conditions that exist at the time of the emergency.	State Local	Ch. 5	N/A

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Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
	✓ Indicate the emergency actions to be taken to protect the public at each ECL, given the local conditions at the time of the emergency.			

Planning S	Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Planning	Standard E – Notification Methods and Procedures	<u> </u>	<u> </u>	
2	Each organization shall establish procedures that describe mutually agreeable bases for notification of response organizations consistent with the emergency classification and action level scheme set forth in [NUREG-0654/FEMA-REP-1] Appendix 1. These procedures shall include means for verification of messages. The specific details of verification need not be included in the plan. ✓ Initial notification from the licensee to a designated offsite 24-hour warning point (e.g., fire or police department dispatch, 911 emergency center). Offsite plans/procedures indicate the location of the warning point and the method of notification and backup (e.g., commercial telephone, dedicated telephone, fax machine, or pager). If the initial notification from the licensee to the warning point is over a non-secure system, the criterion requires message verification (e.g., via a return call). If the primary means of notification from the licensee to the warning point is on a dedicated system (i.e., one capable of being used only by a known, limited number of organizations), OROs may choose whether to verify receipt of notification. ✓ Initial notification to licensee and the ORO when a notification originates from an entity other than the licensee. The plans/procedures identify the points of contact for the licensee and ORO, method of notification and backup,	Licensee State Local	Ch. 6	SEOO Emergency Response Procedures C-4A

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Planning Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
and method of verifying notification. ✓ Subsequent notifications from the licensee and/or ORO to other offsite organizations. The plans/procedures may call for subsequent notifications to locations other than the warning point or other designated entities. For example, after the EOC is operational, the plans /procedures may state that all further notifications are made directly to the EOC rather than to the warning point.			
 Each organization shall establish procedures for alerting, notifying, and mobilizing emergency response personnel. ✓ Indicate who, by title /position, is responsible for notifying each staff member, either by including a notification call list or making reference to such a list. ✓ Describe the process used to notify all applicable OROs once the 24-hour warning point, or other designated entity, has received and verified the initial notification, if necessary. ✓ Describe who, by title/position, has the responsibility for notifying all appropriate organizations once the initial notification to the 24-hour warning point has been made. For example, the responsibility of the warning point for notifications may end after it places a call to the State and county emergency management agencies. A diagram that shows how the notification process works (e.g., call-down) may supplement a plan/procedure description. ✓ Indicate the specific notifications made at each ECL. ✓ Indicate the means by which notifications will be accomplished (e.g., pagers, telephones, radios, auto dialers). 	Licensee State Local	Ch. 6	SEOO Emergency Response Procedures C-4A
E.3 The licensee, in conjunction with State and local organizations, shall establish the contents of the initial emergency messages to be sent from the plant	Licensee		
E.4 Each licensee shall make provisions for follow-up messages from the facility to offsite authorities	Licensee		

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Plannir	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
E.5	 State and local government organizations shall establish a system for disseminating to the public appropriate information contained in initial and follow-up messages received from the licensee, including the appropriate notification to appropriate broadcast media, e.g., the Emergency Alert System (EAS.) ✓ List the broadcast stations and other systems (e.g., tone alert radios, route alerting) used to provide emergency instructions to the public. ✓ Establish individual responsibilities for each broadcast station and system and document commitments between them and the ORO (e.g., MOUs and/or LOAs) to honor these responsibilities in a radiological emergency. (Also see Criterion A.3.) ✓ Document or reference the broadcast stations' or systems' capability to participate in the public notification process. A statement that the station participates in a "Local Emergency Alert System Operational Area Plan" is considered satisfactory. ✓ Identify broadcast station and system points of contact, by title/position, who are accessible 24 hours a day, 7 days a week. (Also see Criterion A.4.) ✓ Establish the interval for broadcasting official information statements. ✓ Identify an alternate station, if a selected station does not have a backup power supply. 	Licensee State Local	Ch. 6 Ch. 8 County responsibilities detailed in relevant county plans	N/A
E.6	Each organization shall establish administrative and physical means, and the time required for notifying and providing prompt instruction to the public within the plume exposure pathway Emergency Planning Zone. (See [NUREG-0654/FEMA-REP-1] Appendix 3) It shall be the licensee's responsibility to demonstrate that such means exist, regardless of who implements this requirement. It shall be the responsibility of the State and local governments to activate such a system.	Licensee State Local	Ch. 6 Ch. 8 County responsibilities detailed in relevant county plans	N/A

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Planning Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
 ✓ State that the Alert and Notification System (ANS) is capable of meeting the 15-minute design objective. ✓ Describe the primary and backup physical means of alert and notification, including the system(s) used to alert and notify the general public, persons with disabilities and access /functional needs, and exception areas, and their respective point(s) of activation. ✓ Describe the administrative means of alert and notification, including: The title of the organizations or individuals responsible for: (1) making the decision to activate the ANS and (2) activating the system; The ANS activation procedures and time required to implement these procedures; and A discussion of how the requirements for periodic siren testing will be accomplished. 			
Each organization shall provide written messages intended for the public, consistent with the licensee's classification scheme. In particular, draft messages to the public giving instructions with regard to specific protective actions to be taken by occupants of affected areas shall be prepared and included as part of the State and local plans. Such messages should include the appropriate aspects of sheltering, ad hoc respiratory protection, e.g., handkerchief over mouth, thyroid blocking, or evacuation. The role of the licensee is to provide supporting information for the messages. For ad hoc respiratory protection see "Respiratory Protective Devices Manual" American Industrial Hygiene Association, 1963, pp. 123-126. ✓ EAS message templates that would be modified as necessary and sent to the EAS station(s) for broadcast; ✓ Provisions for special news broadcasts as supplements to the EAS message; ✓ Provisions for foreign language translations of EAS messages and special news broadcasts, if required; ✓ The process for selecting, modifying, approving, and releasing messages; and	Licensee State Local	Ch. 6 Ch. 8	N/A

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Planning Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
✓ The methodology for EAS message rebroadcast, along with the frequency (how many times and at what interval, such as every 15 minutes).			

Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Plannin	g Standard F – Emergency Communications	<u> </u>	L	
F.1.a	Provision for 24-hour per day notification to and activation of the State/local emergency response network; and, at a minimum, a telephone link and alternate, including 24-hour per day manning of communications links that initiate emergency response actions; ✓ Describe the equipment used (e.g., dedicated telephone line or specific radio net) for notifying and communicating with the organization's personnel and other response organizations. The equipment must include a primary link and alternate means of communication. ✓ Describe the system used to ensure 24-hour availability to receive and pass along notifications. The system is generally a continuously staffed warning point (e.g., a police dispatch center) or a duty officer system in which the designated duty officer carries a pager.	Licensee State Local	Ch. 7	N/A
F.1.b	 Provision for communication with contiguous State/local governments within the Emergency Planning Zones; ✓ Primary and backup communication capability between all local governments within the plume EPZ; ✓ Primary and backup communication capability between each local government and any associated host/support counties located outside the plume EPZ; and ✓ Primary and backup communication capability between each State government and all local governments within its jurisdiction and with other State governments within the plume and/or ingestion EPZ. 	Licensee State Local	Ch. 7	N/A

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Plannir	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
F.1.c	 Provision for communications, as needed, with Federal emergency response organizations; ✓ The system(s) available for communicating with Federal response organizations (e.g., ordinary commercial telephone, dedicated telephone lines, or radio nets). ✓ The primary system and at least one backup system. 	Licensee State Local	Ch. 7	N/A
F.1.d	 Provision for communications between the nuclear facility and the licensee's Emergency Operations Facility, State and local emergency operations centers, and radiological monitoring teams; ✓ The primary and backup communication systems that provide links to the emergency operations facility; and ✓ For jurisdictions that deploy radiological monitoring and other field teams, the primary and backup systems used to communicate with the teams. 	Licensee State Local	Ch. 7	N/A
F.1.e	 Provision for alerting or activating emergency personnel in each response organization; ✓ Contain a general description of how personnel are activated (i.e., notified of an incident and requested to report to their emergency duty station). ✓ Include or reference lists of names and phone numbers of personnel to alert or activate based on the ECL. 	Licensee State Local	Ch. 7	SEOO Emergency Response Procedures C-4A
F.1.f	Provision for communication by the licensee with NRC headquarters and NRC Regional Office Emergency Operations Centers and the licensee's Emergency Operations Facility and radiological monitoring team assembly area.	Licensee		
F.2	Each organization shall ensure that a coordinated communication link for fixed and mobile medical support facilities exists. ✓ Identification of communications links between the ambulance and the designated hospital /medical facilities; and ✓ A description of primary and backup communications among the hospital/medical facilities, the jurisdiction's EOC, and the licensee.	Licensee State Local	Ch. 7	N/A

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Planning	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
F.3	Each organization shall conduct periodic testing of the entire emergency communications system (see [NUREG-0654/FEMA-REP-1] Evaluation Criteria H.10 and N.2.a, and Appendix 3.) ✓ Describe the test method and period (e.g., monthly, quarterly or annually) for each communication system used for the functions identified in Criteria F.1. and F.2.	Licensee State Local	Ch. 7	N/A

Plannin	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Plannin	ng Standard G – Public Education and Information			
G.1	Each organization shall provide a coordinated periodic (at least annually) dissemination of information to the public regarding how they will be notified and what their actions should be in an emergency. This information shall include, but not necessarily be limited to: a. educational information on radiation; b. contact for additional information; c. protective measures, e.g., evacuation routes and relocation centers, sheltering, respiratory protection, radioprotective drugs; and d. special needs of the handicapped. Means for accomplishing this dissemination may include, but are not necessarily limited to: information in the telephone book; periodic information in utility bills; postings in public areas; and publications distributed on an annual basis. A description of each item (e.g., brochure, calendar, utility bill insert) used to disseminate public information annually. Copies of these items must be provided to FEMA for review on an annual basis through the ALC. In addition to the ALC submission, new public information brochures /calendars, etc. will be sent to FEMA prior to dissemination for a baseline review, and will then be submitted annually	Licensee State Local	Ch. 8	N/A

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Planning Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
thereafter with the ALC or for review during a SAV, exercise, separate mailing, etc. ✓ Provisions for identifying individuals needing assistance with evacuation and how personal information will be protected. ✓ A description of materials directed to transient populations. ✓ A description of materials addressing information for the ingestion pathway, if separate from the general public information materials. ✓ A description of each item translated into non-English languages that are spoken within the EPZ as well as information accessible to other persons with disabilities and access/functional needs located within the EPZ.31			
The public information program shall provide the permanent and transient adult population within the plume exposure EPZ an adequate opportunity to become aware of the information annually. The programs should include provision for written material that is likely to be available in a residence during an emergency. Updated information shall be disseminated at least annually. Signs or other measures (e.g., decals, posted notices, or other means placed in hotels, motels, gasoline stations, and phone booths) shall also be used to disseminate to any transient population within the plume exposure pathway EPZ appropriate information that would be helpful if an emergency or accident occurs. Such notices should refer the transient to the telephone directory or other source of local emergency information and guide the visitor to appropriate radio and television frequencies. ✓ Methods used to disseminate public information, assuring that all residences in the plume EPZ will be covered, and that written material will likely be available in a residence during an emergency; ✓ Methods for distributing ingestion exposure pathway information annually within the 10-mile EPZ, and provisions for distribution within the 50-mile EPZ if needed; and	Licensee State Local	Ch. 8	N/A

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Plannin	Planning Standards and Evaluation Criteria		Plan Location	Procedure
G.3.a	 ✓ Methods used to disseminate and maintain public information for transient populations. Each principal organization shall designate the points of contact and physical locations for use by news media during an emergency. ✓ Identify the location where the jurisdiction will brief the media, whether at a Joint Information Center (JIC), separate facility, or both. ✓ Include a physical description of the facility, including its location and size, and any steps necessary to activate it for use (e.g., coordination with other organizations consistent with ICS, installation of equipment, and rearranging of furnishings), for jurisdictions that operate a media facility. ✓ If the primary facility is located within the EPZ, identify an alternate facility located outside the EPZ available to provide the same capabilities, and describe the facility with the same level of detail specified for the primary facility. ✓ Describe the organization's capability to answer media telephone inquiries. ✓ Describe the mechanism for coordination between the team of personnel designated to answer media calls and the organization's public information officer (PIO), as well as 	Licensee State Local	Ch. 8	N/A
G.3.b	with points of contact located at other facilities supporting the JIC. Each licensee shall provide space that may be used for a limited number of the news media at the Emergency	Licensee		
G.4.a	 Operations Facility. Each principal organization shall designate a spokesperson who should have access to all necessary information. ✓ Identify who, by title/position, will serve as the main PIO for the organization and where the PIO will be located. If media interaction is planned for more than one location, a main PIO is designated for each location. ✓ Describe how the PIO will obtain access to information about the emergency and the organizations' response efforts, 	Licensee State Local	Ch. 8	N/A

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Planning	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
	gather and verify such information, and coordinate /communicate with the appropriate personnel for approval in advance of disseminating any information to the public and/or the media. ✓ If the PIO will be operating at a location remote from the EOC, describe: • Who, by title/position, will be the main point of contact in the EOC for exchanging information with the PIO; and • What physical means (e.g., telephone, fax, or computer network) will be used for communicating information between the EOC and the PIO. ✓ Include procedures for authorizing release of information and, in particular, for control and release of sensitive information.			
G.4.b	 Each organization shall establish arrangements for timely exchange of information among designated spokespersons. ✓ The exchange, discussion, and coordination of information among PIOs, if information is provided to the media primarily through a JIC (e.g., meetings to coordinate and share information prior to press briefings / conferences, circulation of press releases among the PIOs and their staffs); ✓ If the jurisdiction has a PIO at a separate facility (in addition to or instead of the JIC), equipment and procedures for timely exchange of information with other PIOs, including: Who, by title/position, is responsible for ensuring that the exchange takes place; and What physical communication means (e.g., telephone, fax, computer network, electronic mail, video, or Internet-based teleconference system) will be used. 	Licensee State Local	Ch. 8	N/A
G.4.c	Each organization shall establish coordinated arrangements for dealing with rumors.	Licensee State	Ch. 8	N/A

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Planning Standards and Evaluation Criteria		Applicability	Plan Location	Procedure
	 Describe the capability to receive and effectively respond to numerous simultaneous telephone calls from the general public and respond to questions, requests, or comments posed by the public. Identify the method for publicizing the dedicated telephone number(s) and other contact information (e.g., Website address) for public inquiries and/or media information. Include or describe procedures to effectively monitor media information messages to identify incomplete, inaccurate, or ambiguous information related to the emergency in the public domain. If a jurisdiction sends a delegate to a joint public inquiry program or relies on another organization to answer public inquiries, identify which organization provides or coordinates the public inquiries program and the method for contacting that organization. 	Local		
G.5	Each organization shall conduct coordinated programs at least annually to acquaint news media with the emergency plans, information concerning radiation, and points of contact for release of public information in an emergency. ✓ Provisions for an annual media briefing. ✓ Distribution of written materials (media kits) covering topics described below. ✓ Each item provided as baseline information about REP to the local media.	Licensee State Local	Ch. 8	N/A

Planning Standards and Evaluation Criteria		Applicability	Plan Location	Procedure
Plannin	g Standard H – Emergency Facilities and Equipment			
H.1	Each licensee shall establish a Technical Support Center and an onsite operations support center (assembly area) in accordance with NUREG-0696.35	Licensee		

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Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Н.2	Each licensee shall establish an Emergency Operations Facility from which evaluation and coordination of all licensee activities related to an emergency is to be carried out and from which the licensee shall provide information to Federal, State, and local authorities responding to radiological emergencies in accordance with NUREG-0696.36	Licensee		
Н.3	 Each organization shall establish an emergency operations center for use in directing and controlling response functions. ✓ A description of or reference to the location and layout of the EOC; ✓ A listing of facility equipment necessary to support operations; ✓ The EOC's backup power capability, if available; ✓ Details and methods for access control to the facility; ✓ Reference to the location of the alternate EOC, if applicable; and ✓ The organization and official, by title/position, responsible for maintaining the operational readiness of the EOC. 	State Local	Ch. 9	N/A
H.4	 Each organization shall provide for timely activation and staffing of the facilities and centers described in the plan. ✓ Detailed procedures for activation and staffing of all emergency facilities. ✓ Criteria used for declaring facilities operational. ✓ A list of staff, by title/position, assigned to each facility and rosters of key positions. 	Licensee State Local	Ch. 9	SEOO Emergency Response Procedures C-4A
H.5	Each licensee shall identify and establish onsite monitoring systems that are to be used to initiate emergency measures in accordance with [NUREG-0654/FEMA-REP-1] Appendix 1, as well as those to be used for conducting assessment.	Licensee		
H.6	Each licensee shall make provision to acquire data from or for emergency access to offsite monitoring and analysis equipment, including	Licensee		
H.7	Each organization, where appropriate, shall provide for offsite radiological monitoring equipment in the vicinity of the nuclear facility.	Licensee State-DOH Local	Ch. 9	N/A

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Planning Standards and Evaluation Criteria		Applicability	Plan Location	Procedure
	 ✓ Radiological monitoring equipment, by type and number, that is located or stored near the NPP or that will be brought in by the ORO; and ✓ Fixed radiological monitoring stations near the NPP. 		DOH RERPP	
H.8	Each licensee shall provide meteorological instrumentation and procedures that satisfy the criteria in [NUREG-0654/FEMA-REP-1] Appendix 2 and provisions to obtain representative current meteorological information from other sources.	Licensee		
Н.9	Each licensee shall provide for an onsite operations support center (assembly area) that shall have adequate capacity and supplies, including, for example, respiratory protection, protective clothing, portable lighting, portable radiation monitoring equipment, cameras, and communications equipment for personnel present in the assembly area.	Licensee		
H.10	Each organization shall make provisions to inspect, inventory, and operationally check emergency equipment/instruments at least once each calendar quarter and after each use. There shall be sufficient reserves of instruments/equipment to replace those that are removed from emergency kits for calibration or repair. Calibration of equipment shall be at intervals recommended by the supplier of the equipment. ✓ The organization(s) responsible for maintenance of all radiological equipment; and ✓ Specifics regarding the inventory, operational checks, and calibration for dosimetry, portal monitors, radiological survey equipment, air sampling equipment, and laboratory equipment.	Licensee State-DOH Local	Ch. 9 DOH RERPP	N/A
H.11	Each plan shall, in an appendix, include identification of emergency kits by general category (protective equipment, communications equipment, radiological monitoring equipment, and emergency supplies). ✓ The number and contents of emergency kits by location and general category; and ✓ The quantity of each item per kit.	Licensee State-DOH Local	Ch. 9 DOH RERPP	N/A

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Planning	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
H.12	Each organization shall establish a central point (preferably associated with the licensee's Emergency Operations Facility), for receipt and analysis of all field monitoring data and coordination of sample media. ✓ The organization(s) responsible for assessing radiological data; ✓ The location of the central point for compiling and analyzing all field monitoring data, including the means used by FMTs to relay information to the central point; and ✓ The coordination and analysis of sample media, including procedures for transporting samples and transferring the data from the laboratory to the central point.	Licensee State-DOH Local	Ch. 9 DOH RERPP	N/A

Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure			
Planning Standard I – Accident Assessment							
I.1	Each licensee shall identify plant system and effluent parameter values characteristic of a spectrum of off-normal conditions and accidents and shall identify the plant parameter values or other information that correspond to the example initiating conditions of [NUREG-0654/FEMA-REP-1] Appendix 1	Licensee					
I.2	Onsite capability and resources to provide initial values and continuing assessment throughout the course of an accident shall include post-accident sampling capability, radiation and effluent monitors, in-plant iodine instrumentation, and containment radiation monitoring	Licensee					
1.3	Each Licensee shall establish methods and techniques to be used for determining: a. the source term of releases of radioactive material within plant system	Licensee					
I.4	Each licensee shall establish the relationship between effluent monitor readings and onsite and offsite exposures and contamination for various meteorological conditions.	Licensee					

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Plann	ing Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
I.5	Each licensee shall have the capability of acquiring and evaluating meteorological information sufficient to meet the criteria of [NUREG-0654/FEMA-REP-1] Appendix 2	Licensee		
I.6	Each licensee shall establish the methodology for determining the release rate/projected doses if the instrumentation used for assessment is off-scale or inoperable.	Licensee		
I.7	Each organization shall describe the capability and resources for field monitoring within the plume exposure Emergency Planning Zone that are an intrinsic part of the concept of operations for the facility. ✓ Which organizations have primary responsibility for field monitoring activities; and ✓ The capabilities and resources State, local, Tribal, and nongovernmental organizations will contribute.	Licensee State-DOH Local	Ch. 10 DOH RERPP	N/A
I.8	Each organization, where appropriate, shall provide methods, equipment, and expertise to make rapid assessments of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways. This shall include activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times. The process for activating and notifying field teams; ✓ The composition of the FMTs (e.g., organizations involved, number of teams [two or more], number of members on each team); ✓ The types and sources of transportation resource(s) for FMTs and estimated deployment times to reach a site from various locations, if applicable; ✓ The location of any staging areas; ✓ The title/position of the person responsible for directing FMTs to proper locations for monitoring and air sampling; ✓ The monitoring, sampling, and communications equipment that will be used by FMTs; ✓ The procedures that will be followed for field monitoring, sample collection, and field sample analysis;	Licensee State-DOH Local	Ch. 10 DOH RERPP	N/A

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Planning	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
	 ✓ The laboratories to which specific samples will be sent for analysis, including estimated delivery and analysis times, transportation and temporary storage arrangements, and procedures for chain-of custody records; and ✓ How the ORO will obtain centerline measurements. 			
1.9	Each organization shall have a capability to detect and measure radioiodine concentrations in air in the plume exposure EPZ as low as 10-7 Ci/cc (microcuries per cubic centimeter) under field conditions. Interference from the presence of noble gas and background radiation shall not decrease the stated minimum detectable activity. ✓ The capability to collect air samples within the plume and perform analysis that will detect radioiodine concentrations as low as 10-7 μCi/cc under field conditions; and The process used for collecting air samples, including location of sampling points, timing of sample collection, and techniques used to collect and count (see Criterion I.8).	Licensee State-DOH Local	Ch. 10 DOH RERPP	N/A
1.10	Each organization shall establish means for relating the various measured parameters (e.g., contamination levels, water, and air activity levels) to dose rates for key isotopes (i.e., those given in [NUREG-0654/FEMA-REP-1] Table 3, page 18) and gross radioactivity measurements. Provisions shall be made for estimating integrated dose from the projected and actual dose rates and for comparing these estimates with the protective action guides.41 The detailed provisions shall be described in separate procedures. ✓ Personnel and equipment that will be involved in dose assessment; ✓ Computer software and documentation, including data input procedures, that will be used; ✓ Alternate methods that may be used (e.g., hand calculations); ✓ Information/variables to run the model, including proper units of measure;	Licensee State-DOH	Ch. 10 DOH RERPP	N/A

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Plannin	Planning Standards and Evaluation Criteria		Plan Location	Procedure
	 Means for obtaining initial information (e.g., from licensee monitors or inventory estimates); Use of field data to verify and modify model results; and Procedures for comparing dose results with those of other organizations that perform dose assessments. 			
I.11	Arrangements to locate and track the airborne radioactive plume shall be made, using either or both Federal and State	State-DOH	Ch. 10	N/A
	resources.		DOH RERPP	

Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Plannin	g Standard J – Protective Response			I
J.1	Each licensee shall establish the means and time required to warn or advise onsite individuals and individuals who may be in areas controlled by the operator, including: a. Employees not having emergency assignments; b. Visitors; c. Contractor and construction personnel; and d. Other persons who may be in the public access areas on or passing through the site or within the owner-controlled area.	Licensee		
J.2	 Each licensee shall make provisions for evacuation routes and transportation for onsite individuals to some suitable offsite location, including alternatives for inclement weather, high traffic density, and specific radiological conditions. ✓ Assistance that will be provided to licensees during an evacuation of the site or a statement that no assistance is required; ✓ The alternatives that will be implemented during inclement weather and/or high traffic densities; and ✓ Provisions for coordinating arrangements with other offsite organizations to expedite evacuation of onsite personnel. 	Licensee State Local	Ch. 11 Annex A	N/A

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Planning Standards and Evaluation Criteria		Applicability	Plan Location	Procedure
J.3	Each licensee shall provide for radiological monitoring of people evacuated from the site.	Licensee		
J.4	Each licensee shall provide for the evacuation of onsite non- essential personnel in the event of a Site or General Emergency and shall provide a decontamination capability at or near the monitoring point specified in J.3.	Licensee		
J.5	Each licensee shall provide for a capability to account for all individuals onsite at the time of the emergency and ascertain the names of missing individuals within 30 minutes of the start of an emergency and account for all onsite individuals continuously thereafter.	Licensee		
J.6	Each licensee shall, for individuals remaining or arriving onsite during the emergency, make provisions for: a. Individual respiratory protection; b. Use of protective clothing; and c. Use of radioprotective drugs (e.g., individual thyroid protection).	Licensee		
J.7	Each licensee shall establish a mechanism for recommending protective actions to the appropriate State and local authorities. These shall include Emergency Action Levels corresponding to projected dose to the population-at-risk, in accordance with [NUREG-0654/FEMA-REP-1] Appendix 1 and with the recommendations set forth in Tables 2.1 and 2.2 of the Manual of Protective Actions for Nuclear Incidents (EPA-400-R-92-001).41 As specified in NUREG-0654/FEMA-REP-1] Appendix 1, prompt notification shall be made directly to the offsite authorities responsible for implementing protective measures within the plume exposure pathway Emergency Planning Zone.	Licensee		
J.8	Each licensee's plan shall contain time estimates for evacuation within the plume exposure EPZ. These shall be in accordance with [NUREG-0654/FEMA-REP-1] Appendix 4.	Licensee		
J.9	Each State and local organization shall establish a capability for implementing protective measures on the basis of Protective Action Guides and other criteria. This shall be consistent with	State Local	Ch. 11	Planning Section Book

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Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
	the recommendations of the EPA regarding exposure resulting from passage of radioactive airborne plumes, (EPA-400-R-92-001)42 and with those of DHEW (HHS)/FDA regarding radioactive contamination of human food and animal feeds as published in the Federal Register of August 13, 1998 (63 FR 4340243). ✓ The organization's procedures for making PADs and implementing protective actions based upon PAGs that are consistent with EPA recommendations; and ✓ The process followed to ensure coordination of PADs with all appropriate jurisdictions.			
J.10.a	Maps showing evacuation routes, evacuation areas, preselected radiological sampling and monitoring points, relocation centers in host areas, and shelter areas (identification of radiological sampling and monitoring points shall include the designators in [NUREG-0654/FEMA-REP-1] Table J-1 or an equivalent uniform system described in the plan); ✓ Include clearly legible maps of all evacuation routes, evacuation areas, preselected radiological sampling and monitoring points (including water supplies), reception and congregate care centers in host / support jurisdictions, decontamination facilities, and shelter areas; and ✓ Describe the procedures and organization(s) responsible for updating and maintaining maps, as necessary, using the most current and accurate data (e.g., census data, State and county records, etc).	Licensee State Local	Ch. 11 Annex A Licensee plans	N/A
J.10.b	Maps showing population distribution around the nuclear facility. This shall be by evacuation areas (licensees shall also present the information in a sector format); ✓ Clear, legible maps showing population distribution around the NPP, possibly in a separate appendix.	Licensee State Local	Ch. 11 Annex A	N/A
J.10.c	Means for notifying all segments of the transient and resident population; ✓ Meet the requirements listed under Criteria E.5, E.6, and E.7	Licensee State Local	Ch. 11	N/A

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Planning	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
J.10.d	 Means for protecting those persons whose mobility may be impaired due to such factors as institutional or other confinement; ✓ Describe the means to protect those persons whose mobility may be impaired because of institutional or other confinement (e.g., children in schools and licensed day care centers and persons in nursing homes, hospitals, and correctional facilities). ✓ Describe the methods for determining the number of persons who may need assistance and the type of assistance, per planning area. ✓ Reference lists of documented individuals who need assistance in an evacuation of the EPZ and processes for keeping the lists up to date. ✓ Describe processes for evacuating persons with disabilities and access/functional needs and for sheltering in place those who cannot be moved. ✓ Describe any special transportation needs for these groups and the transportation resources, including types and quantities of vehicles, used to move them. 	State Local	Ch. 11	N/A
J.10.e	Provisions for the use of radioprotective drugs, particularly for emergency workers and institutionalized persons within the plume exposure EPZ whose immediate evacuation may be infeasible or very difficult, including quantities, storage, and means of distribution; ✓ What groups might be advised to take KI; ✓ Adequate supply of radioprotective drugs for each individual, including quantities, storage locations, and means of distribution; ✓ Adequate maintenance, shelf life extensions, and timely replacement of radioprotective drugs; and ✓ Means for communicating a recommendation to take radioprotective drugs to emergency workers, institutionalized persons, and (if included as an option in the plans/procedures) the general public.	State-DOH Local	Ch. 11 Ch. 12 DOH RERPP	N/A

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Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
J.10.f	State and local organizations' plans should include the method by which decisions by the State Health Department for administering radioprotective drugs to the general population are made during an emergency and the pre-determined conditions under which such drugs may be used by offsite emergency workers; ✓ Identify, by title/position, those who will make decisions regarding the use of KI during an emergency. ✓ Describe the criteria and decision-making processes for recommending the use of KI.	State-DOH	Ch. 11 DOH RERPP	N/A
J.10.g	 Means of relocation ✓ Means for controlling traffic to assure a safe and efficient evacuation; ✓ Procedures for implementing alternate evacuation routes, if warranted; ✓ Transportation resources, including drivers; ✓ The methods for determining the number of persons without private transportation, per planning area; and ✓ Designated pickup points for persons without private transportation. 	State Local	Ch. 11 Benton County Franklin County	N/A
J.10.h	 Relocation centers in host areas which are at least 5 miles, and preferably 10 miles, beyond the boundaries of the plume exposure emergency planning zone (see [NUREG-0654/FEMA-REP-1 Criterion] J.12); ✓ All relocation centers and host schools for evacuees and students by name and address; ✓ Organizations responsible for managing the centers and staffing requirements for each center; ✓ Arrangements for handling students at relocation centers and/or host schools; ✓ Arrangements for handling service animals; ✓ Hospitals, correctional facilities, and nursing homes that will receive evacuees; ✓ Provisions for the radiological monitoring of evacuees, service animals, and evacuee vehicles, according to the plans / procedures (if students are taken to host schools 	State Local	Ch. 11 Annex A DOH RERPP Benton County Franklin County	N/A

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	where monitoring capabilities are not present, the plans / procedures address any special considerations for radiological monitoring of student evacuees following a release); and ✓ Provisions for students at schools outside the EPZ who reside within the EPZ.			
J.10.i	 Projected traffic capacities of evacuation routes under emergency conditions; ✓ Reference the evacuation time estimate (ETE) studies and include the results of the ETEs. ✓ Reference the traffic capacities of the evacuation routes. ✓ Discuss the potential need to use alternate routes because of traffic impediments, adverse weather conditions, an airborne radioactive plume, areas affected by hostile actions, or other factors that might hinder a timely, safe evacuation. ✓ Provide maps as described in Criterion J.10.a. 	State Local	Ch. 11 Annex A Benton County Franklin County	N/A
J.10.j	 Control of access to evacuated areas and organization responsibilities for such control; ✓ Procedures for controlling road access to sheltered and/or evacuated areas, including organization(s) responsible for staffing TCPs and Access Control Points (ACPs); ✓ Maps identifying TCPs/ACPs (may be incorporated by reference); ✓ Equipment and resources needed (e.g., cones or barricades); ✓ Procedures and responsibilities for controlling access via other transportation modes; ✓ Procedures and responsibilities for controlling ingress and egress to other areas affected by an incident; and ✓ Procedures for providing TCP/ACP staff with the status of emergency response activities. 	State Local	Ch. 11 Annex A Benton County Franklin County	N/A
J.10.k	 Identification of and means for dealing with potential impediments (e.g., seasonal impassability of roads) to use of evacuation routes, and contingency measures; ✓ Resources available (e.g., personnel and equipment) to clear impediments to evacuation and emergency response in areas affected by incidents; and 	State Local	Ch. 11 Benton County Franklin County	N/A

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Plannir	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
	✓ Responsibility for directing resources and rerouting traffic, as needed.			
J.10.1	Time estimates for evacuation of various sectors and distances based on a dynamic analysis (time-motion study under various conditions) for the plume exposure pathway emergency planning zone (see [NUREG-0654/FEMA-REP-1] Appendix 4); ✓ Time estimates for evacuation of various sectors or evacuation areas; and ✓ The times required for the movement of school children and other persons with disabilities and access/functional needs.	State Local	Ch. 11 Annex A Benton County Franklin County	N/A
J.10.m	The bases for the choice of recommended protective actions from the plume exposure pathway during emergency conditions. This shall include expected local protection afforded in residential units or other shelter for direct and inhalation exposure, as well as evacuation time estimates. ✓ The rationales for any preplanned precautionary actions, including the triggering events that would lead to the decision to implement these actions; ✓ The rationales used to make initial PADs; and ✓ The rationales used for subsequent PADs, including the consideration of various possible options.	Licensee State	Ch. 11 Annex A	Planning Section Book
J.11	Each State shall specify the protective measures to be used for the ingestion pathway, including the methods for protecting the public from consumption of contaminated food-stuffs. This shall include criteria for deciding whether dairy animals should be put on stored feed. The plan shall identify procedures for detecting contamination, for estimating the dose commitment consequences of uncontrolled ingestion, and for imposing protection procedures such as impoundment, decontamination, processing, decay, product diversion, and preservation. Maps for recording survey and monitoring data, key land use data (e.g., farming), dairies, food processing plants, water sheds, water supply intake and water treatment plants and reservoirs shall be maintained. Provisions for maps	State	Ch. 11	Planning Section Book

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showing detailed crop information may be made by including reference to their availability and location and a plan for their use. The maps shall start at the facility and include all of the 50-mile ingestion pathway EPZ. Up-to-date lists of the name and location of all facilities which regularly process milk products and other large amounts of food or agricultural products originating in the ingestion pathway Emergency Planning Zone, but located elsewhere, shall be maintained.53 The individual(s), by title /position, and organization with the authority to make decisions in the ingestion pathway planning zone. The ingestion protective actions planned and the rationale for the selection of actions, also see Criteria J.9. and J.10.m. The methodology used to designate the areas of concern where monitoring and sampling will be implemented. The methodology for collecting agricultural samples, including identifying field team members, providing necessary supplies, names and addresses of contact points to obtain permission to collect samples, and chain of custody procedures. The analytical laboratory capability to analyze various samples and the procedure for reporting analytical results to the appropriate organization. The location and means of obtaining up-to-date information on licensed agribusiness facilities within the EPZ. This information includes dairies, food processing plants, surface water supplies, water intakes, farmers markets, farm stands, nurseries, and other permanent facilities. Information also includes facilities outside the EPZ that could receive potentially contaminated products from within the EPZ, including names and telephone numbers for points of contact. The location and means of obtaining up-to-date information on land use (i.e., which crops are being grown in which areas). This information includes the status of harvesting.			

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 ✓ The DILs that would warrant implementation of protective actions and the rationale and assumptions used to develop the DILs. ✓ The availability of suitable maps for recording various data. The use of electronic means to capture and map survey and dose data (e.g., geographic information systems) are acceptable. 			
Each organization shall describe the means for registering and monitoring of evacuees at relocation centers in host areas. The personnel and equipment available should be capable of monitoring within about a 12-hour period all residents and transients in the plume exposure EPZ arriving at relocation centers. ✓ Radiological monitoring of evacuees, service animals, vehicles, and possessions. OROs need to be capable of monitoring 20 percent of the EPZ population (including transients) assigned to each facility within a 12-hour period. ✓ Decontamination procedures, including the trigger/action levels that indicate the need for decontamination activities and procedures for medical attention referral. ✓ Contamination control measures, such as safety requirements, decontamination site layout, and decontamination protocol.	State Local	Ch. 11 DOH RERPP Benton County Franklin County	N/A

Plannin	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Planning Standard K – Radiological Exposure Control				
K.1	Each licensee shall establish onsite exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides (EPA 520/1-75/00157) for: a. removal of injured persons; b. undertaking corrective actions;	Licensee		

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Planning	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
K.2	c. performing assessment actions; d. providing first aid; e. performing personnel decontamination; f. providing ambulance service; and g. providing medical treatment services. Each licensee shall provide an onsite radiation protection program to be implemented during emergencies, including methods to implement exposure guidelines	Licensee		
K.3.a	Each organization shall make provision for 24-hour-per-day capability to determine the doses received by emergency personnel involved in any nuclear accident, including volunteers. Each organization shall make provisions for distribution of dosimeters, both self-reading and permanent record devices. ✓ Methods or options for emergency worker exposure control, to include exposure from inhalation; ✓ Dose limits for emergency workers; ✓ Types and quantities of dosimeters and dosimeter chargers available per location and the number of emergency workers needing dosimetry devices; ✓ Process for reading PRDs and any early reading of PRDs (e.g., when an emergency worker's task assignment is completed or as otherwise specified); ✓ Specific dosimetry instructions, including when, where, and to whom individuals return their dosimetry devices; ✓ Dosimetry storage locations; ✓ Distribution of dosimetry to all emergency workers and, when permitted, members of the public needing access to the restricted area; and ✓ Proper documentation of authorization to exceed administrative dose limits.	Licensee State-DOH Local	Ch. 12 DOH RERPP	N/A
K.3.b	Each organization shall ensure that dosimeters are read at appropriate frequencies and provide for maintaining dose records for emergency workers involved in any nuclear accident.	Licensee State-DOH Local	Ch. 12 DOH RERPP Benton County	N/A

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Plannin	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
	 ✓ The method for obtaining dose information from emergency workers; ✓ The timeframes for reading dosimeters (e.g., every 15 or 30 minutes); ✓ The methods for recording doses (e.g., the form used); and ✓ Appropriate reporting if administrative limits have been reached or exceeded (refer to Criterion K.4.). Each State and local organization shall establish the decision 		Franklin County Ch. 12	N/A
K.4	 chain for authorizing emergency workers to incur exposures in excess of the EPA General Public Protective Action Guides (i.e., EPA PAGs for emergency workers and lifesaving activities). ✓ Dose limits (TEDE) for missions, accounting for dose from inhalation; ✓ Actions taken when exposure limits have been reached; ✓ Any special conditions requiring additional limitations (e.g., pregnant emergency workers); ✓ Authorization to exceed pre-authorized exposure limits and management of emergency workers' exposure above the limits; ✓ Points of contact for authorization to remain in the hazard area and receive additional exposure (e.g., for special lifesaving missions) if the allowable upper limit has been reached; ✓ Information on risk and threshold doses for health effects to be provided to emergency workers volunteering for higher dose exposure; and ✓ Administrative limits. 	State-DOH Local	DOH RERPP	
K.5.a	Each organization as appropriate, shall specify action levels for determining the need for decontamination. ✓ Facilities for monitoring and decontaminating emergency workers, equipment, and vehicles, along with operating and implementing procedures; ✓ Locations of monitoring and decontamination facilities (preferably located outside the plume EPZ);	Licensee State-DOH Local	Ch. 12 DOH RERPP Benton County Franklin County	N/A

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Planning	g Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
	 ✓ Methods for controlling the spread of contamination at the emergency worker monitoring facilities; ✓ Radioactive contamination levels that will trigger decontamination of emergency workers, equipment, and vehicles, expressed in applicable units (e.g., cpm, mR/hr); ✓ Survey instruments (i.e., specific appropriate equipment and sensitivity, including radiation type) used to monitor emergency workers, equipment, and vehicles; and ✓ Procedures for monitoring individuals and equipment. 			
K.5.b	 Each organization, as appropriate, shall establish the means for radiological decontamination of emergency personnel wounds, supplies, instruments and equipment, and for waste disposal. ✓ Supplies and equipment for decontamination; ✓ Decontaminating people, equipment, and vehicles; ✓ Re-monitoring people, equipment, and vehicles and recording the results; ✓ Criteria for sending individuals with fixed contamination for medical attention; ✓ Controlling the spread of contamination; ✓ Number of people needed to perform decontamination in the event of an emergency; and ✓ Contaminated waste collection, handling, and storage. 	Licensee State-DOH Local	Ch. 12 DOH RERPP	N/A
K.6	Each licensee shall provide onsite contamination control measures including: a. area access control; b. drinking water and food supplies; c. criteria for permitting return of areas and items to normal use, see EPA-400-R-92-001.60	Licensee		
K.7	Each licensee shall provide the capability for decontaminating relocated onsite personnel, including provisions for extra clothing and decontaminants suitable for the type of contamination expected, with particular attention given to radioiodine contamination of the skin.	Licensee		

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Plannir	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Plannir	ng Standard L – Medical and Health Support			
L.1	 Each organization shall arrange for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake, including assurance that persons providing these services are adequately prepared to handle contaminated individuals. ✓ Reference written agreements or LOAs with hospitals/medical facilities. ✓ Reference written agreements or LOAs for technical staff that are not employed by the hospital/medical facility. ✓ Include individual facility capabilities, including the number of radiologically trained medical personnel and support staff. ✓ Describe hospital/medical facility and support service operations for treating contaminated, injured, or exposed individuals. ✓ Describe dosimetry procedures, including record keeping and final receipt for processing. 	Licensee State Local	Ch. 13	N/A
L.2	Each licensee shall provide for onsite first aid capability.	Licensee		
L.3	Each State shall develop lists indicating the location of public, private and military hospitals and other emergency medical services facilities within the State or contiguous States considered capable of providing medical support for any contaminated injured individual. The listing shall include the name, location, type of facility and capacity, and any special radiological capabilities. These emergency medical services should be able to radiologically monitor contamination personnel, and have facilities and trained personnel able to care for contaminated injured persons. ✓ Lists of additional hospitals/medical facilities capable of providing medical support for contaminated, injured, or exposed individuals.	State	Ch. 13	N/A

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Plannii	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
L.4	 Each organization shall arrange for transporting victims of radiological accidents to medical support facilities. ✓ The method for determining an appropriate hospital/medical facility and the person, by title/position, responsible for the determination; ✓ Means of transporting individuals, including how to request additional emergency medical services; ✓ Communications between the transport crew and hospital/medical facility staff; ✓ Specifics of radiological monitoring; ✓ Contamination control measures during transport; ✓ Decontamination techniques, including trigger/action levels; 	Licensee State Local	Ch. 13 DOH RERPP Benton County Franklin County	N/A
	 ✓ Dosimetry for the transport crew; and ✓ LOAs with transportation providers (see Criterion A.3). 			

Plannin	Planning Standards and Evaluation Criteria		Plan Location	Procedure
Plannin	g Standard M – Recovery and Reentry Planning and Post-A	l Accident Opera	tions	
M.1	Each organization, as appropriate, shall develop general plans and procedures for reentry and recovery and describe the means by which decisions to relax protective measures (e.g., allow reentry into an evacuated area) are reached. This process should consider both existing and potential conditions. ✓ Continuing environmental radiation measurements and dose assessments; ✓ Establishing restricted and buffer zones; ✓ Relocation; ✓ Controlled reentry into restricted areas; ✓ Return of the public to previously evacuated areas; and ✓ Recovery, including a list of actions that may be needed and organizations responsible for carrying them out.	Licensee State Local	Ch. 14 DOH RERPP	Planning Section Book

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Planning	Planning Standards and Evaluation Criteria		Plan Location	Procedure
M.2	Each licensee plan shall contain the position/title, authority, and responsibilities of individuals who will fill key positions in the facility recovery organization. This organization shall include technical personnel with responsibilities to develop, evaluate, and direct recovery and reentry operations. The recovery organization recommended by Functional Criteria for Emergency Response Facilities, NUREG-0696 (February 1981) and Clarification of TMI Action Plan Requirements, Requirements for Emergency Response Capability, NUREG-0737, Supplement 1 (January 1983), is an acceptable framework.	Licensee		
M.3	Each licensee and State plan shall specify means for informing members of the response organizations that a recovery operation is to be initiated, and of any changes in the organizational structure that may occur. ✓ Means used to keep all involved response organizations (e.g., OROs with affected populations and/or areas) informed of recovery phase plans/procedures being developed, such as remedial measures, how long they will take, and what final outcome is expected; and ✓ Changes that might take place in the organizational structure (e.g., the Governor being in charge under a "state of emergency" that may then revert to a new or other authority).	Licensee State	Ch. 14 CEMP	N/A
M.4	Each plan shall establish a method for periodically estimating total population exposure. ✓ Identify agencies responsible for and involved in long-term dose assessment activities after an incident.	Licensee State	Ch. 11 Ch. 14 DOH RERPP	N/A

Planning Standards and Evaluation	Criteria	Applicability	Plan Location	Procedure	
Planning Standard N – Exercises and Drills					
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An exercise is an event that tests the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations. Exercises shall be conducted as set forth in NRC and FEMA rules and policy. ✓ REP exercises will be conducted in accordance with NRC and FEMA rules and policy. An exercise shall demonstrate the key skills of response organizations to adequately respond to an incident scenario. The scenarios shall vary such that the major elements of emergency plans are exercised within an eight-year exercise cycle. Each scenario variation shall be demonstrated at least once during the eight-year exercise cycle and shall include, but not be limited to, the following: a. Hostile action directed at the plant site involving the integration of offsite resources with onsite response; b. An initial classification of or rapid escalation to a Site Area Emergency or General Emergency; c. No radiological release or an unplanned minimal radiological	License State Local	ee Ch	bility . 15	Plan Location	N/A N/A	Procedure	
release that requires the site to declare a Site Area Emergency, but does not require declaration of a General Emergency. For this scenario variation the following conditions shall apply: i. The licensee is required to demonstrate the ability to respond to a no/minimal radiological release scenario at least once within the 8- year exercise cycle. State, Tribal and local response organizations have the option, and are encouraged, to participate jointly in this demonstration. ii. When planning for a joint no/minimal radiological release exercise, affected State, Tribal and local jurisdictions, the licensee, and FEMA will identify offsite capabilities that may still need to be valuated and agree upon appropriate alternative evaluation methods to satisfy FEMA's biennial criteria requirements. Alternative evaluation methods that could be considered during the extent of play negotiations include expansion of the exercise scenario, out of sequence	Licenso State Local	:					

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Planning Standards and Evaluation Criteria		Applicability	Plan Location		Procedure
activities, plan reviews, staff assistance visits or other means as described in FEMA guidance. iii. If the offsite organizations elect not to participate in the licensee's required minimal or no-release exercise, they will still be obligated to meet the exercise requirements as specified in 44 CFR § 350.9.67 ✓ All major elements of the plans/procedures will be tested at minimum at the frequency specified by the REP Program Manual, Exhibit III-2; and ✓ Scenarios for exercises will be varied from exercise to exercise and include all required scenario variations during the exercise cycle.					
Provisions must be made to start a drill or exercise between 6:00 p.m. and 4:00 a.m. at least once in every eight-year exercise cycle. Some drills or exercises should be unannounced.	Licensee	e			
An exercise shall include mobilization and implementation of State and local (as appropriate) personnel and resources adequate to verify the capability and response to a large radiological release requiring ingestion pathway protective actions beyond the 10 mile EPZ at least once every 8 years. Organizations shall specify who is responsible for the decision- making process. OROs shall reference or include the organization's procedures for making PADs and implementing protective actions based upon PAGs that are consistent with EPA recommendations, and the process for ensuring coordination of PADs with all applicable jurisdictions. ✓ The State and other OROs (as appropriate) will participate in an ingestion pathway exercise at least once every 8 years. ✓ States that do not have an NPP located within their borders, but are located within the 50-mile EPZ of a bordering State's NPP, must fully participate in at least one exercise at least once every 8 years at the bordering State's site(s). ✓ OROs within the 50-mile EPZ that are not part of the full- participation ingestion exercise with the State participate in an ingestion tabletop exercise or other ingestion pathway training activity at least once during the exercise cycle.	State Local	Ch. 15		N/A	

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Planning Standards and Evaluation Criteria		Applic	ability	Plan Location		Procedure
✓ The number and types of personnel participating in ingestion aspects of an exercise will be sufficient for carrying out those ingestion measures required by the incident scenario.						
Communications Drills. Communications with State and local governments within the plume exposure pathway Emergency Planning Zone shall be tested monthly. Communications with Federal emergency response organizations and States within the ingestion pathway shall be tested quarterly. Communications between the nuclear facility, State and local emergency operations centers, and field assessment teams shall be tested annually. Communication drills shall also include the aspect of understanding the content of messages. ✓ ORO communications systems are tested monthly. ✓ Communications with the Federal response organizations and States within the ingestion pathway are tested quarterly. ✓ Communications with the NPP, ORO EOCs, and field assessment teams are tested annually. ✓ All communications drills include a message content check.	Licens State Local	ee	Ch. 15		N/A	
Fire Drills. Fire drills shall be conducted in accordance with the plant (nuclear facility) technical specifications.	License	ee				
Medical Emergency Drills. A medical emergency drill involving a simulated contaminated individual which contains provisions for participation by the local support services agencies (i.e., ambulance and offsite medical treatment facility) shall be conducted annually. The offsite portions of the medical drill may be performed as part of the required biennial 78 exercise. ✓ Medical emergency drills are conducted annually.	License Local	ee I	Ch. 15		N/A	
Radiological Monitoring Drills. Plant environs and radiological monitoring drills (onsite and offsite) shall be conducted annually. These drills shall include collection and analysis of all sample media (e.g., water, vegetation, soil and air), and provisions for communications and record keeping. The State drills need not be at each site. Where appropriate, local organizations shall participate. ✓ Radiological monitoring drills are conducted annually.	License State-DO Local	ee OH	Ch. 15		N/A	

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Health Physics Drills (1). Health physics drills shall be conducted semi-annually which involve response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment. The State drills need not be at each site. — Health physics drills are conducted semi-annually. Health Physics Drills (2) Analysis final technicial semi-annually.	License State-D0		Ch. 15		N/A		
Health Physics Drills (2). Analysis of inplant liquid samples with actual elevated radiation levels shall be included in Health Physics drills by licensees annually.	License	ee					
Each organization shall describe how exercises and drills are to be carried out to allow free play for decision making and to meet the following objectives. Pending the development of exercise scenarios and exercise evaluation guidance by the NRC and FEMA the scenarios for use in exercises and drills shall include, but not be limited to, the following: a. The basic objective(s) of each drill and exercise and appropriate evaluation criteria; b. The date(s), time period, place(s), and participating organizations; c. The simulated events; d. A time schedule of real and simulated initiating events; e. A narrative summary describing the conduct of the exercises or drills to include such things as simulated casualties, offsite fire department assistance, rescue of personnel, use of protective clothing, deployment of radiological monitoring teams, and public information activities; and f. A description of the arrangements ✓ Each of the items a through f above will be addressed in the scenario developed for the exercise.	Licens State Local		Ch. 15		N/A		
Biennial exercises shall be evaluated and critiqued as required. FEMA evaluators shall evaluate offsite emergency response organization performance in the biennial exercise in accordance with FEMA REP exercise methodology. ✓ ORO exercise performance is evaluated according to FEMA REP exercise methodology.	License State Local		Ch. 15		N/A		

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Planning Standards and Evaluation Criteria		Applicability	Plan Location	Procedure
Plannin	g Standard O – Radiological Emergency Response Training			
O.1	 Each organization shall assure the training of appropriate individuals. ✓ Identify organizations responsible for coordinating radiological training. ✓ Identify organizations that will ensure radiological emergency response training will be included as part of fire, police, and ambulance/rescue training, if appropriate. ✓ Describe provisions to ensure availability of just-in-time training on basic radiation protection for all emergency workers, as needed. ✓ Describe provisions to ensure appropriate personnel participate in training courses designed for individuals who will assist in radiological emergency response (e.g., transportation providers). 	Licensee State Local	Ch. 16	N/A
O.1.a	Each facility to which the plan applies shall provide site-specific emergency response training for those offsite emergency organizations who may be called upon to provide assistance in the event of an emergency.	Licensee		
O.1.b	Each offsite response organization shall participate in and receive training. Where mutual aid agreements exist between local agencies such as fire, police, and ambulance/rescue, the training shall also be offered to the other departments that are members of the mutual aid district. Training is offered to the mutual aid district, if mutual aid plans/procedures have been established between local agencies.	State Local	Ch. 16	N/A
O.2	The training program for members of the onsite emergency organization shall, besides classroom training, include practical drills in which each individual demonstrates ability to perform his assigned emergency function. During the practical drills, onthe-spot correction of erroneous performance shall be made and a demonstration of the proper performance offered by the instructor.	Licensee		

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Planning Standards and Evaluation Criteria		Applicability	Plan Location	Procedure
O.3	Training for individuals assigned to licensee first aid teams shall include courses equivalent to Red Cross Multi-Media.	Licensee		
O.4.a	 Directors or coordinators of the response organizations; ✓ Training programs specific to directors/coordinators; ✓ Scope of the training programs; ✓ Time intervals at which these training programs will be offered; and ✓ Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable. 	Licensee State Local	Ch. 16	N/A
O.4.b	 Personnel responsible for accident assessment; ✓ Training programs specific to accident assessment personnel; ✓ Scope of the training programs; ✓ Time intervals at which these training programs will be offered; and ✓ Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable. 	Licensee State Local	Ch. 16	N/A
O.4.c	 Radiological monitoring teams and radiological analysis personnel; ✓ Training programs specific to radiological monitoring teams and radiological analysis personnel; ✓ Scope of the training programs; ✓ Time intervals at which these training programs will be offered; and ✓ Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable. 	Licensee State-DOH Local	Ch. 16	N/A
O.4.d	 Police, security, and fire-fighting personnel; ✓ Training programs specific to police, security, and firefighting personnel; ✓ Scope of the training programs; ✓ Time intervals at which these training programs will be offered; and ✓ Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable. 	Licensee State	Ch. 16	N/A
O.4.e	Repair and damage control/correctional action teams (onsite);	Licensee		

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Plannir	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
O.4.f	 First aid and rescue personnel; ✓ Training programs specific to first aid and rescue personnel; ✓ Scope of the training programs; ✓ Time intervals at which these training programs will be offered; and ✓ Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable. 	Licensee Local		
O.4.g	 Local support services personnel including Civil Defense/Emergency Service personnel; ✓ Training programs specific to medical support personnel, including specific training for hospital/medical facility staff and transportation providers; ✓ Scope of the training programs; ✓ Time intervals at which these training programs will be offered; and ✓ Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable. 	Licensee Local		
O.4.h	Medical support personnel;	Licensee State Local	Ch. 16	N/A
O.4.i	Licensee's headquarters support personnel;	Licensee		
O.4.j	 Personnel responsible for transmission of emergency information and instructions. ✓ Training programs specific to personnel responsible for transmission of emergency information and instructions; ✓ Scope of the training programs; ✓ Time intervals at which these training programs will be offered; and ✓ Organizations (e.g., licensee, FEMA) that will provide training assistance, if applicable. 	Licensee State Local	Ch. 16	N/A
O.5	Each organization shall provide for the initial and annual retraining of personnel with emergency response responsibilities.	Licensee State Local	Ch. 16	N/A

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Plani	ning St	andards and Evaluation Criteria	Applicability	Plan Location	Procedure
	√	State which organizations will provide initial training as well as retraining.			

Planni	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
Planni	ng Standard P – Responsibility for the Planning Effort; Deve	lopment, Peric	odic Review, and Disti	ribution of Emergency Plans
P.1	 Each organization shall provide for the training of individuals responsible for the planning effort. ✓ Identify, by title/position, individuals responsible for oversight of plan/procedure development and maintenance, including the positions referred to in Criteria P.2 and P.3, and any other positions with planning responsibilities. ✓ Specify the training regimen for the identified individuals. 	Licensee State Local	Ch. 17	N/A
P.2	Each organization shall identify by title the individual with the overall authority and responsibility for radiological emergency response planning. ✓ Identify, by title/position, the individual responsible for radiological emergency response planning.	Licensee State Local	Ch. 17	N/A
P.3	Each organization shall designate an Emergency Planning Coordinator with responsibility for the development and updating of emergency plans and coordination of these plans with other response organizations. ✓ Identify, by title/position, the individual responsible for developing and updating emergency plans / procedures as well as coordinating plans / procedures with other response organizations.	Licensee State Local	Ch. 17	N/A
P.4	Each organization shall update its plan and agreements as needed, review and certify it to be current on an annual basis. The update shall take into account changes identified by drills and exercises. ✓ Evidence that plans/procedures and agreements have been reviewed for accuracy and completeness of information and	Licensee State Local	Ch. 17	N/A

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Plannir	Planning Standards and Evaluation Criteria		Plan Location	Procedure
	 appropriate changes made within the last year (e.g., a signature page, etc.); ✓ A process for correcting plan issues identified in drills and exercises; ✓ A process for periodic update of maps; and ✓ A process for periodic updating of ingestion pathway information (e.g., a list of food processing facilities, etc.) (See also Criterion J.11.). 			
P.5	 The emergency response plans and approved changes to the plans shall be forwarded to all organizations and appropriate individuals with responsibility for implementation of the plans. Revised pages shall be dated and marked to show where changes have been made. ✓ List the organizations and individuals who are given the updated plans/procedures. ✓ Identify individual(s), by title/position, responsible for distributing plan/procedure updates and what the update cycle is. ✓ Include revision bar markings or equivalent visual indications on revised pages to reflect where changes were made and on what date, or a summary list of changes in cases where changes are so numerous or extensive that revision bars are impractical. 	Licensee State Local	Ch. 17	N/A
P.6	Each plan shall contain a detailed listing of supporting plans and their source. ✓ A list of supporting radiological emergency plans/procedures.	Licensee State Local	Ch. 17	N/A
P.7	Each plan shall contain an appendix listing, by title, procedures required to implement the plan. The listing shall include the section(s) of the plan to be implemented by each procedure. ✓ Include a list of all implementing procedures associated with the body of the plan. The list indicates which section(s) of the plan are implemented by each procedure.	Licensee State Local	Ch. 17	N/A
P.8	Each plan shall contain a specific table of contents. Plans submitted for review should be cross-referenced to these criteria. ✓ A specific table of contents; and	Licensee State Local	TOC App 5	N/A

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Appendix 5	Revision 0
NUREG-0654/FEMA-REP-1 Cross Reference	1/12/2018

Plannin	ng Standards and Evaluation Criteria	Applicability	Plan Location	Procedure
	✓ A cross-reference between the plans/procedures and the NUREG-0654/FEMA-REP-1 Evaluation Criteria.			
P.9	Each licensee shall arrange for and conduct independent reviews of the emergency preparedness program at least every 12 months	Licensee		
P.10	Each organization shall provide for updating telephone numbers in emergency procedures at least quarterly. Who, by title/position, is responsible for quarterly updates of each procedure that contains telephone numbers.	Licensee State Local	Ch. 17	N/A

Planning Guidance, Part II: REP Program Planning Guidance, REP Program Manual, January 2016

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